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Spider Mum,
Queen's Lace

Geo. J. Ball
INC.
WEST CHICAGO
ILLINOIS

MUM CUTTINGS for '51

CARNATIONS

BULBS

SMALL PLANTS

Geo. J. Ball, Inc., West Chicago, Ill.

B E T T E R M U M S



F O R F L O R I S T S

New Varieties for 1951

LARGE FLOWERING STANDARDS

YELLOW

JAMBOREE. (Yoder.) November 10. Golden yellow. Very similar to Mefo except in color. Responds with Mefo for shading. Large flower; does not shatter.

PINK

SUGAR PLUM. (Yoder.) November 1. Improves J. W. Prince in size and substance.

WHITE

SNOWLINE. (Yoder.) December 10. A large, easily grown white Mum.

BRONZE

OAKDALE. (Yoder.) November 10. Buff-bronze. Best grown in natural season.

COPPERHEAD. (Yoder.) November 10. A large coppery bronze decorative. Satisfactory as a disbud spray, but best disbudded to a single flower. Excellent for pot culture. Best flowered May and June, and September through November.

SPIDER VARIETIES

MARY GARDEN. (DePetris.) November 5. Pink.

POMPONS, SINGLES and ANEMONES

YELLOW

JAMES STEWART. (DePetris.) October 10. Apricot-gold. Excellent cloth house variety. Holds well.

GOLDRUSH. (Yoder.) October 10. Yellow Daisy. Vigorous 3 ft. growth. Resistant foliage and good cut flower production.

BRIGHT FORECAST. (Yoder.) October 10. Formal yellow pompon. Similar to Gold Coast. Outstanding flower quality.

LEMONADE. (Yoder.) October 15. Ivory-yellow decorative. Excellent as an early cut flower variety.

SWEEPSTAKE. (Yoder.) October 15. Small formal pompon. An excellent cut flower variety with production, flower substance and durable foliage.

SCHNEEBURG'S DAISY. (Neal.) November 1. Golden yellow sport of Yellow Daisy. 50 cuttings for \$4.00; 100-250 cuttings, \$7.60 per 100; 300-450 cuttings, \$7.20 per 100; 500-950 cuttings, \$6.80 per 100; 1000-2450 cuttings, \$6.40 per 100; 2500 or more cuttings, \$6.00 per 100.

CRESCENDO. (Yoder.) Nov. 5. Beautiful large pompon. Outstanding for high temperature period from May 15 to Sept. 15. Tall. Has a 76-day response to short day treatment but requires 10 less long days for growth than generally recommended for this group.

ILLINI GOLDCUP. (Neal-U. of Ill.) Nov. 10. Large buttercup-yellow pompon. Tall grower with heavy stiff stems. 50 cuttings for \$5.00; 100-250 cuttings, \$9.50 per 100; 300-450 cuttings, \$9.25 per 100; 500-950 cuttings, \$9.00 per 100; 1000-2450 cuttings, \$8.75 per 100; 2500 or more cuttings, \$8.50 per 100.

BOJANGLES. (Yoder.) Nov. 20. Yellow Daisy. Excellent flowered November through March.

KLONDIKE. (Yoder.) Nov. 20. Best described as an intense orange-yellow Masterpiece. Useful in natural sprays, disbudded sprays or small disbuds. Outstanding in April, May and June; also October through December.

LOLLIPOP. (Yoder.) Nov. 20. Formal round and hard lemon-yellow. Good producer. A good variety for every week of the year.

PRICES above varieties except where noted: 50 cuttings for \$5.00; 100-250 cuttings, \$9.50 per 100; 300-450 cuttings, \$9.00 per 100; 500-950 cuttings, \$8.50 per 100; 1000-2450 cuttings, \$8.00 per 100; 2500 or more cuttings, \$7.50 per 100.

YELLOW—Continued

NOSEGAY. (Yoder.) Dec. 1. Small yellow pompon. Grows and produces like Omega. Can be flowered From Sept. 15 to April 15.

SYMMETRY. (Yoder.) Dec. 5. Intermediate yellow pompon. Short, stocky growth. Does not shatter. Best flowered in natural season.

BRANDYWINE. (Yoder.) Dec. 5. Deep orange-yellow decorative. Excellent growth habit similar to Yuleflame. Best flowered December through February.

GOLDTONE. (Yoder.) Dec. 5. Single. Best described as a yellow Christmas Star. Best flowered Oct. 15 to March 15. Tolerates wide temperature range.

SEQUIN. (Yoder.) Dec. 15. Small yellow pompon. A late Pixie. Superior to Golden Anniversary in response and growth habit. Hard, round and durable.

SHAMROCK. (Yoder.) Dec. 15. Large yellow decorative. A large yellow Silversmith. Heavy Yuleflame growth and production. Best flowered November through February.

CHALLENGE. (Yoder.) Dec. 15. Intermediate yellow single. Better than Sunkist in color and production. Stocky growth habit. Best flowered Dec. 15 to March 15.

CORSAIR. (Yoder.) Dec. 18. Large yellow pompon. Outstanding for quality, vigor and production. Excellent for October 15 to March 15 flowering.

SUNRISE. (Yoder.) Dec. 24. A late Gold Coast. Not sensitive to low night temperatures. Better growth habit than Yellow Snow or Golden Anniversary.

SIREN. (Yoder.) Dec. 30. Decorative type. Smaller than Vibrant but very similar to it and flowers later. Tolerates low night temperatures.

WHITE

MONOGRAM. (Yoder.) Oct. 5. Pure white Daisy. Compact growth makes it excellent for garden planting or pot culture.

RENNOWN. (Yoder.) Oct. 10. White Daisy. Larger flower, improved form and better keeper than Serenity. Excellent for garden planting or pot culture.

CLASSIC. (Yoder.) Oct. 10. Small semi-formal pompon. Excellent flower quality. Good for garden planting.

SILVERPLATE. (Yoder.) Oct. 15. Decorative. Vigorous and productive outdoor cut flower variety.

SONGSTER. (Yoder.) Oct. 25. Intermediate type. Withstands heat. Good for June, July and August flowering. More productive and higher quality flower than Pristine.

HALO. (Yoder.) Nov. 5. White Daisy for cloth house. Very productive. For best results the time between pinch and shade should not exceed 28 days.

KOLOWA. (DePetris.) Nov. 5. White single similar to, but with better growth and response than Mensa. Best grown in sprays.

SNOWFLURRY. (Yoder.) Nov. 20. A small white button, larger than Pinocchio. Promising for October through March.

HIGHBROW. (Yoder.) Nov. 20. Ivory-white decorative similar to Cameo. Best flowered November through February.

PARAMOUNT. (Yoder.) Nov. 28. Intermediate type. Larger than Priscilla, freer and sturdier growth than Cordova and with Sunnyside growth and response. Tolerates a wide temperature range. Best flowered October through March.

BELRAY. (DePetris.) Dec. 3. One of the best large, tall growing whites for March 15 to June 15 flowering.

SPANGLES. (Yoder.) Dec. 5. Small white pompon. Best described as a late white Sunnyside.

FORTUNE. (Yoder.) Dec. 10. Formal pompon. Omega growth and production; freer than Snowcap. Excellent for October 15 to March 15.

ILLINI STARBURST. (Neal-U. of Ill.) Dec. 10. Creamy white. Petals stand out straight and are tubular. Stiff stems and excellent substance. 50 cuttings for **\$5.00**; 100-250 cuttings, **\$9.50** per 100; 300-450 cuttings, **\$9.25** per 100; 500-950 cuttings, **\$9.00** per 100; 1000-2450 cuttings, **\$8.75** per 100; 2500 or more cuttings, **\$8.50** per 100.

HEIRLOOM. (Yoder.) Dec. 20. Decorative. Form resembles Debonair. Excellent for December through February.

PRICES above varieties except where noted: 50 cuttings for **\$5.00**; 100-250 cuttings, **\$9.50** per 100; 300-450 cuttings, **\$9.00** per 100; 500-950 cuttings, **\$8.50** per 100; 1000-2450 cuttings, **\$8.00** per 100; 2500 or more cuttings, **\$7.50** per 100.

PINK

SWEETHEART. (Yoder.) Oct. 10. Light lavender-pink Daisy. 3 ft. Fine for cutting and holds well.

SERENADE. (Yoder.) Oct. 10. Magenta-pink daisy. Strong, upright 3-ft. stems. Fine for cutting.

JOYBRINGER. (Yoder.) Oct. 10. Salmon-rose decorative. Dwarf, compact and spreading habit makes it desirable for garden planting or pot culture.

ADAGIO. (DePetris.) Oct. 10. Brilliant raspberry coppery rose. Useful for cutting in the garden and early cloth house. Similar to Mary McArthur with more brilliant color.

FASHION. (Yoder.) Oct. 15. A two-tone salmon and rosewood-pink. Semi-double decorative.

SALUTE. (Yoder.) Oct. 15. A deep orchid daisy cut flower variety. Beautiful form and substance.

REWARD. (Yoder.) Oct. 25. A very productive deep pink daisy that holds color in July and August. Outstanding early pink daisy for June 15 to Sept. 15 flowering.

TAFFETA. (Yoder.) Nov. 15. Deep pink decorative. Good flowered Sept. 15 to Thanksgiving and April 15 to June 15.

PINKY. (Yoder.) Nov. 20. Intermediate decorative. High producer. Responds more rapidly than Minstrel. Excellent October through March.

MAJORETTE. (Yoder.) Nov. 25. Small anemone. Short compact growth. An ideal pot plant. Fine for cutting during April, May, June, and Sept. 15 through November.

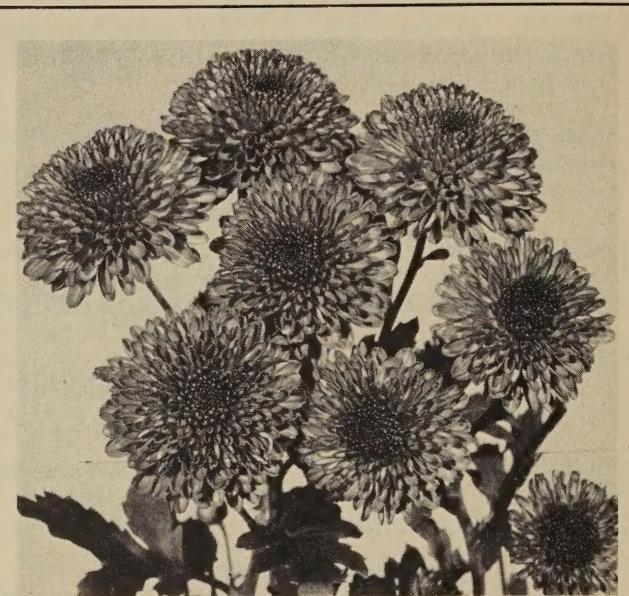
ILLINI CAMILLE. (Neal-U. of Ill.) Dec. 8. Single; soft warm deep flesh-pink with yellow center. Improves Rosalind. Good producer. 50 cuttings, \$5.00; 100-250 cuttings, \$9.50 per 100; 300-450 cuttings, \$9.25 per 100; 500-950 cuttings, \$9.00 per 100; 1000-2450 cuttings, \$8.75 per 100; 2500 or more cuttings, \$8.50 per 100.

CORONET. (Yoder.) Dec. 10. Intermediate deep pink single. Wide petals with small eye. Does not require 60-degree night temperature for setting buds.

BRONZE

MARIONETTE. (Yoder.) Sept. 25. Small rust-red about 1½ inches in diameter. Formal type. Strong growth to about 25 inches. Good cut flower variety. Holds well.

FIRESIDE. (Yoder.) Oct. 10. Burnt orange and salmon decorative. 30 inches high. Resistant foliage. Heavy producer. Fine for cutting.



DARK PINK DOT

(Rowe.) Oct. 25. Sport of the well-known Dot varieties. Beautiful deep pink Pompon. 50 cuttings, \$4.00; 100-250 cuttings, \$7.60 per 100; 300-450 cuttings, \$7.20 per 100; 500-950 cuttings, \$6.80 per 100; 1000-2450 cuttings, \$6.40 per 100; 2500 cuttings or more, \$6.00 per 100.

DEBUTANTE. (Yoder.) Dec. 10. Large single. Color similar to Valencia. Better producer than Rosalind and easier to grow than Valencia. Good flowered November, December, January and February.

MEDALLION. (Yoder.) Dec. 20. A decorative similar to Riviera with superior growth. Good flowered November through February.

and RED

CALICO. (Yoder.) Oct. 10. Coral-bronze daisy. Strong, tall plant. Fine for cutting.

BAMBOO. (Yoder.) Oct. 10. Buff-bronze daisy. Vigorous 30-in. growth. Good quality and keeper.

WITCHERY. (Yoder.) Oct. 15. Golden bronze decorative. Compact 2-ft. growth. Fine for garden planting or cutting. Fine keeper.

NOCTURNE. (DePetris.) Oct. 15. An early crimson cut flower variety for field or greenhouse.

PRICES above varieties except where noted: 50 cuttings for \$5.00; 100-250 cuttings, \$9.50 per 100; 300-450 cuttings, \$9.00 per 100; 500-950 cuttings, \$8.50 per 100; 1000-2450 cuttings, \$8.00 per 100; 2500 or more cuttings, \$7.50 per 100.

BRONZE and RED—Continued

NOKOMIS. (DePetris.) Oct. 15. Large bronze decorative.

ROBINHUE. (Yoder.) Oct. 15. Very double, large red decorative. Excellent cut flower.

FIREFLY. (DePetris.) Oct. 25. An early red pompon that holds its color exceptionally well. Fine for cloth house.

BUCKSKIN. (Yoder.) Oct. 25. A tawny bronze daisy. Easily replaces California Bronze Daisy in early cloth house program. Outstanding production.

BEAUREGARD. (Yoder.) Nov. 1. A reddish orange pompon. Similar to Seneca but holds color better. Good every month of the year.

MAGICIAN. (Yoder.) Nov. 5. Large bronze pompon for Sept. 15 to early November. Color particularly good under artificial light.

CHEVRON. (Yoder.) Nov. 10. An intense red. Resembles a red Cassandra with better spray formation. Holds color better than Red Rust or Seneca. Best flowered May 15 to early November.

CHANTICLEER. (Yoder.) Nov. 10. Large reddish bronze for September, October and early November.

GOLD BRAID. (Yoder.) Nov. 12. Two-tone bronze. Fine in May and June, and Sept. 15 to Nov. 15.

PARAGON. (Yoder.) Nov. 15. Large red. Heavy producer. A red Masterpiece with good substance. Sept. 1 to Nov. 20.

THELMA. (DePetris.) Nov. 20. Brilliant orange-scarlet. Excellent Sept. 25 to Christmas.

MRS. DEWEY. (Cummings.) Nov. 20. A heavy-petaled deep bronze single. Very desirable for late September, October, and November. Strong grower; ships and handles exceptionally well.

CAROUSEL. (Yoder.) Nov. 22. Coral-bronze daisy. Wide petals, excellent form and substance. Does well under low night temperatures.

INDIAN HEAD. (Yoder.) Nov. 28. Reddish apricot-bronze single. Improves the Valencias in freer growth habit. Excellent Sept. 15 through April.

FALCON. (Yoder.) Dec. 1. Intermediate reddish bronze. Improves Rusticon. Flowers easily Oct. 15 to March 15.

DAZZLER. (Helm.) Dec. 5. Coppery bronze partial anemone. Strong growing.

PAGEANTRY. (Yoder.) Dec. 10. Best described as a red Snow. Needs low temperatures. Suited for December flowering only.

CHRISTMAS GREETING. (Yoder.) Dec. 20. Large red decorative. The one red pompon with good production for Christmas. Flowers well from Nov. 15 to Feb. 15.

CLARET. (Yoder.) Dec. 20. A brilliant red daisy. Short stocky growth. Requires minimum of 55 degrees night temperature. Makes an outstanding Christmas pot plant.

PRICES above varieties except where noted: 50 cuttings for \$5.00; 100-250 cuttings, \$9.50 per 100; 300-450 cuttings, \$9.00 per 100; 500-950 cuttings, \$8.50 per 100; 1000-2450 cuttings, \$8.00 per 100; 2500 or more cuttings, \$7.50 per 100.

NEW SPORTS of POPULAR VARIETIES

YELLOW COTTON TOP. (Neal.) October 25. Lemon-yellow sport of Cotton Top. 50 cuttings for \$5.00; 100-250 cuttings, \$9.50 per 100; 300-450 cuttings, \$9.25 per 100; 500-950 cuttings, \$9.00 per 100; 1000-2450 cuttings, \$8.75 per 100; 2500 or more cuttings, \$8.50 per 100.

YELLOW FIREBIRD. (Neal.) October 25. Lemon-yellow sport of Firebird. 50 cuttings for \$3.25; 100-250 cuttings, \$6.00 per 100; 300-450 cuttings, \$5.75 per 100; 500-950 cuttings, \$5.50 per 100; 1000-2450 cuttings, \$5.25 per 100; 2500 or more cuttings, \$5.00 per 100.

DARK ENCHANTRESS. (Bordine.) Dec. 5.

BRONZE MINSTREL. (Yoder.) Dec. 20.

CRIMSON VALENCIA. (Delworth.) Nov. 28.

DARK BRONZE MASTERPIECE. (Yoder.) Nov. 15.

BRONZE THYRA. (Yoder.) Nov. 10.

RED SENECA. (Mikkelsen.) Nov. 1.

YELLOW LACE. (Yoder.) November 1. Yellow sport of Queen's Lace.

PRICES last 7 varieties, each: 50 cuttings for \$4.00; 100-250 cuttings, \$7.60 per 100; 300-450 cuttings, \$7.20 per 100; 500-950 cuttings, \$6.80 per 100; 1000-2450 cuttings, \$6.40 per 100; 2500 or more cuttings, \$6.00 per 100.

WHITE CALIFORNIA DAISY. (Rowe.) Nov. 1. 50 cuttings, \$2.50; 100-250 cuttings, \$4.75 per 100; 300-450 cuttings, \$4.50 per 100; 500-950 cuttings, \$4.25 per 100; 1000-2450 cuttings, \$4.00 per 100; 2500 or more cuttings, \$3.75 per 100.

RED BRISTOLITE. (Rowe.) Nov. 25. 50 cuttings, \$3.00; 100-250 cuttings, \$5.70 per 100; 300-450 cuttings, \$5.40 per 100; 500-950 cuttings, \$5.10 per 100; 1000-2450 cuttings, \$4.80 per 100; 2500 or more cuttings, \$4.50 per 100.

B E T T E R M U M S



F O R F L O R I S T S

Better (AND MORE PROFITABLE!) Mums for 1951

We are becoming more and more convinced that the spring and early summer crops of Mums are not only here to stay, but are increasing. Not only are cutting sales rapidly increasing, but growers who have tried them are usually enthusiastically planning to expand their plantings. For the wholesale grower it means getting off the usually well-supplied fall markets and adding a quite profitable crop to his spring rotation. A crop of Mums or Poms that can be cleared in 2 or 3 months of bench space can't help but pay well during the spring. (See Oct. 1950 "Grower Talks" for our method of handling Mums as a catch crop.) For the retailer a spring crop of Poms and Mums means an interesting diversification in available flowers.

Many of the new varieties listed on the four preceding pages are specifically recommended for spring and summer flowering. The Spiders, like Queen's Lace and its yellow sport that are rapidly increasing in popularity, respond very well to spring and summer flowering.

We strongly suggest that all Mum growers seriously consider plantings of Mums and Poms during the spring. The technical aspects of growing are well worked out and described in detail beginning on page 22 of this catalog. Expanding during the spring and summer months will not only relieve the over-produced fall markets, but it should increase the over-all demand for Mums, which is what we all want.

Yours for more profit from Mums!

President

General Index

New Varieties for 1951	Cover 2	Lily Bulbs	30
Greenhouse Varieties	5	Carnations	31
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Chrysanthemum Culture	22	Index of Greenhouse Varieties	Cover 3

INSTRUCTIONS FOR ORDERING

The minimum total order that can be accepted is 500 cuttings. Fifty of each variety is the minimum that can be supplied.

More than 50 of a variety must be in multiples of 50.

Orders must be marked with a definite delivery date, such as May 10th, June 1st, etc. Orders marked "Early Delivery," "Deliver when ready," "Spring Delivery," are too indefinite.

In writing your order, please use special alphabetically arranged order blanks enclosed with this catalog.

SUBSTITUTIONS

We will substitute varieties as good or better for any items not listed in this catalog unless order is marked **No Substitutions**.

SHIPPING INFORMATION

Special shipping instructions and address if different from your regular mail address should be shown on your order.

All cuttings are shipped Railway Express, Air Freight or Air Express, collect. If you have any preference, designate on your order; otherwise our shippers will use their best judgment. Cuttings are in perfect condition when they are accepted by the transportation company. Therefore, if there is any damage enroute from being broken, heated or frozen, CALL YOUR EXPRESS or AIR FREIGHT AGENT to inspect the shipment upon arrival, marking on express receipt or bill of lading the condition of the package and amount of damage, etc. YOU MUST FILE CLAIM, as our responsibility ceases when the carrier accepts shipment. We cannot be responsible for the safe arrival of your cuttings.

LIMITATION OF WARRANTY

We, Geo. J. Ball, Inc., warrant, to the extent of the purchase price, that seeds, plants or bulbs sold are as described on the container, within recognized tolerances. We give no other or further warranty, express or implied.

IMPORTANT: ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE.

Large Flowering Standards

Types are abbreviated as follows: Inc.—Incurved; Ref.—Reflexed. Size of flower is indicated by S—Small; M—Medium; L—Large. S—Indicates varieties we find most suitable for shading. P—Indicates varieties suitable for pot plants.

Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

YELLOW

Best yellows for August, *Good News; September, *Good News; October, *Indianapolis Yellow; November, Indianapolis Yellow, Yellow Mefo; Thanksgiving, Yellow Chattanooga; December, Golden Mrs. Ross; Christmas, Tobin's Yellow.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
P CELESTRA. Lemon-yellow. S. Inc. Pinch 7-8	10-15	\$2.50	\$4.50	\$4.25	\$4.00	\$3.75	\$3.50
P GOLD LODGE. Light golden yellow. M. Ref. Pinch 7-8.	10-15	2.50	4.75	4.50	4.25	4.00	3.75
YELLOW CHIEF. Sport. M. Ref. Pinch 7-8	10-15	2.75	5.20	4.95	4.65	4.40	4.15
P MRS. KIDDER. Deep lemon-yellow. L. Inc. Pinch 7-8.	10-20	2.50	4.75	4.50	4.25	4.00	3.75
SP BLAZING GOLD. Deep golden yellow. M. Inc. Pinch 7-14	10-25	3.00	5.70	5.40	5.10	4.80	4.50
SMITH'S SUPERLATIVE. Golden yellow. Pinch 7-14.	10-25	3.00	5.70	5.40	5.10	4.80	4.50
SUNGLOW. Golden yellow. L. Inc. Pinch 7-14	10-25	2.75	5.20	4.95	4.65	4.40	4.15
P YELLOW AMBASSADOR. Light lemon-yellow. L. Inc. Pinch 7-14	10-25	3.00	5.70	5.40	5.10	4.80	4.50
YELLOW BERGEN. Med. Inc. Pinch 7-14	10-25	3.00	5.70	5.40	5.10	4.80	4.50
GOLDEN GLORY. Golden yellow. Pinch 7-14	11-1	3.00	5.70	5.40	5.10	4.80	4.50
S GOOD NEWS. Deep lemon-yellow. M. Inc. Pinch 7-19	11-5	3.00	5.70	5.40	5.10	4.80	4.50
S INDIANAPOLIS YELLOW. Lemon-yellow. M. Inc. Pinch 7-20	11-8	2.75	5.20	4.95	4.65	4.40	4.15
S YELLOW QUEEN. Sport of Orchid Queen. L. Inc. Pinch 7-19	11-10	3.00	5.70	5.40	5.10	4.80	4.50
S JAMBOREE. (New. See cover 2 for complete description.) Golden yellow. L. Inc. Pinch 7-19	11-10	5.00	9.50	9.00	8.50	8.00	7.50
P YELLOW BEAUTY. Golden yellow. Pinch 7-19	11-10	3.00	5.70	5.40	5.10	4.80	4.50
YELLOW POCKETT. Exhibition variety. Pinch 7-19.	11-10	3.00	5.70	5.40	5.10	4.80	4.50
YELLOW MONUMENT. Light lemon-yellow. L. Inc. Pinch 7-22	11-15	2.75	5.20	4.95	4.65	4.40	4.15
HONEY DEW. Lemon-yellow. Int. Inc. Pinch 7-22.	11-15	3.00	5.70	5.40	5.10	4.80	4.50
P BONAFFON DELUXE. Golden yellow. S. Inc. Pinch 7-25	11-20	2.50	4.75	4.50	4.25	4.00	3.75
P FRIENDLY RIVAL. Deep chrome-yellow. L. Inc. Pinch 7-25	11-20	2.75	5.20	4.95	4.65	4.40	4.15
PURDUE. Lemon-yellow. L. Inc. Pinch 7-25	11-20	4.00	7.60	7.20	6.80	6.40	6.00
S YELLOW MEFO. Lemon-yellow. L. Inc. Pinch 7-25.	11-20	3.00	5.70	5.40	5.10	4.80	4.50
MARIE DEPETRIS. Deep golden yellow. L. Inc. Pinch 7-24	11-23	2.75	5.20	4.95	4.65	4.40	4.15
HARVESTER. Deep canary-yellow. L. Inc. Pinch 7-24	11-23	3.00	5.70	5.40	5.10	4.80	4.50
BALL ENGLE. Med. Yellow. Inc. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
WALTER ENGLE. Med. Yellow sport of Gladys Pearson. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
P SUN GOLD. Lemon-yellow. M. Inc. Pinch 7-28	11-25	2.75	5.20	4.95	4.65	4.40	4.15
S GOLDEN PEARSON. Light golden yellow. M. Inc. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
YELLOW CHATTANOOGA. L. Inc. Pinch 7-28 ..	11-25	2.75	5.20	4.95	4.65	4.40	4.15
GOLDEN MRS. ROSS. Golden yellow. L. Inc. Pinch 7-30	12-3	2.50	4.75	4.50	4.25	4.00	3.75
GOLDEN MISTLETOE. Light golden yellow. L. Inc. Pinch 8-1	12-10	3.00	5.70	5.40	5.10	4.80	4.50
TOBIN'S YELLOW. M. Inc. Pinch 8-4	12-15	3.00	5.70	5.40	5.10	4.80	4.50
METEORE. Lemon-yellow. M. Inc. Pinch 8-4	12-15	3.00	5.70	5.40	5.10	4.80	4.50

*Starred varieties must be shaded to flower at this time.

B E T T E R M U M S



F O R F L O R I S T S

Large Flowering Standards

Types are abbreviated as follows: Inc.—Incurved; Ref.—Reflexed. Size of flower is indicated by S—Small; M—Medium; L—Large.

S—Indicates varieties we find most suitable for shading. P—Indicates varieties suitable for pot plants.
Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

WHITE

Best whites for August, *Silver Sheen; September, *Betsy Ross; October, *Indianapolis White; November, Indianapolis White, Marketeer; Thanksgiving, Chattanooga; December, December Glory; Christmas, Smith's Late White.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
WHITE CHIEF. Sport. M. Inc. Pinch 7-8	10-15	\$2.75	\$5.20	\$4.95	\$4.65	\$4.40	\$4.15
S SILVER SHEEN. M. Inc. Pinch 7-8	10-20	2.50	4.75	4.50	4.25	4.00	3.75
P GRANITE STATE. Pure white. S. Inc. Pinch 7-12 ..	10-25	2.75	5.20	4.95	4.65	4.40	4.15
P AMBASSADOR. Cream-white. L. Inc. Pinch 7-14 ..	10-25	3.00	5.70	5.40	5.10	4.80	4.50
ALBATROSS. L. Inc. Pinch 7-14	11-1	3.00	5.70	5.40	5.10	4.80	4.50
SNOW WHITE. M. Inc. Pinch 7-14	11-1	2.75	5.00	4.75	4.50	4.25	4.00
S BETSY ROSS. Ivory-white. L. Inc. Pinch 7-16	11-1	2.75	5.20	4.95	4.65	4.40	4.15
S INDIANAPOLIS WHITE. M. Inc. Pinch 7-20	11-8	2.75	5.20	4.95	4.65	4.40	4.15
JEAN ELIZABETH. Pinch 7-20	11-10	3.00	5.70	5.40	5.10	4.80	4.50
P RICHARD MANDEL. White. S. Inc. Pinch 7-19 ..	11-10	2.75	5.20	4.95	4.65	4.40	4.15
WHITE POCKETT. Exhibition type. Pinch 7-20 ..	11-10	3.00	5.70	5.40	5.10	4.80	4.50
MONUMENT. Ivory-white. L. Inc. Pinch 7-22	11-15	2.75	5.20	4.95	4.65	4.40	4.15
SP MARKETEER. M. Inc. Pinch 7-25	11-18	2.75	5.20	4.95	4.65	4.40	4.15
STERLING. Lg. White Inc. Pinch 7-25	11-18	4.00	7.60	7.20	6.80	6.40	6.00
S MEFO. Ivory-white. L. Inc. Pinch 7-24	11-20	3.00	5.70	5.40	5.10	4.80	4.50
P WHITE FRICK. White suffused pink. M. Inc. Pinch 7-28	11-25	2.75	5.20	4.95	4.65	4.40	4.15
INDIANA MARKET. White. L. Inc. Pinch 7-28 ..	11-25	3.25	6.00	5.75	5.50	5.25	5.00
CHATTANOOGA. L. Inc. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
DECEMBER GLORY. Ivory-white. M. Inc. Pinch 7-31	12-1	2.75	5.20	4.95	4.65	4.40	4.15
DECEMBER WHITE. Int. Inc. Pinch 7-31	12-5	3.00	5.70	5.40	5.10	4.80	4.50
MARGARET MOELLER. White. L. Inc. Pinch 7-31 ..	12-5	2.75	5.20	4.95	4.65	4.40	4.15
WHITE MISTLETOE. M. Inc. Pinch 8-1	12-10	3.00	5.70	5.40	5.10	4.80	4.50
SNOWLINE. (New. See cover 2 for complete description.) Large, showy white flower. Pinch 8-1	12-10	5.00	9.50	9.00	8.50	8.00	7.50
SMITH'S LATE WHITE. Ivory-white. M. Inc. Pinch 8-4	12-15	3.00	5.70	5.40	5.10	4.80	4.50

PINK

Best pinks for September, *Indianapolis Pink; October, *Orchid Queen; November, Orchid Queen; Thanksgiving, Helen Frick.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
EARLY OCTOBER. Light lavender. S. Semi-Inc. Pinch 7-4	10-10	\$3.00	\$5.70	\$5.40	\$5.10	\$4.80	\$4.50
PINK CHIEF. Lavender. M. Inc. Pinch 7-8	10-15	2.75	5.20	4.95	4.65	4.40	4.15
MAJOR BOWES. Deep lavender. M. Inc. Pinch 7-12 ..	10-20	2.75	5.00	4.75	4.50	4.25	4.00
SUGAR PLUM. (New. See cover 2 for complete description.) Hard pink Mum. Pinch 7-14	11-1	5.00	9.50	9.00	8.50	8.00	7.50
DR. ENGUEHARDT. Shaggy pink. Pinch 7-19	11-5	2.75	5.20	4.95	4.65	4.40	4.15
J. W. PRINCE. Rose-pink. M. Inc. Pinch 7-19	11-5	2.75	5.20	4.95	4.65	4.40	4.15
S INDIANAPOLIS PINK. Deep lavender. M. Inc. Pinch 7-20	11-8	2.75	5.20	4.95	4.65	4.40	4.15

*Starred varieties must be shaded to flower at this time.

B E T T E R M U M S



F O R F L O R I S T S

Large Flowering Standards

PINK—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
S DARK ORCHID QUEEN. Mauve-pink. L. Inc. Pinch 7-20	11-10	\$3.00	\$5.70	\$5.40	\$5.10	\$4.80	\$4.50
S ORCHID QUEEN. Orchid-pink. L. Inc. Pinch 7-20	11-10	3.00	5.70	5.40	5.10	4.80	4.50
P QUEEN OF PINKS. Lavender. S. Inc. Pinch 7-19	11-10	2.75	5.20	4.95	4.65	4.40	4.15
PINK POCKETT. Exhibition type. Lavender. Pinch 7-19	11-10	3.00	5.70	5.40	5.10	4.80	4.50
ARISTOCRAT. L. Inc. Deep lavender. Pinch 7-22	11-20	3.25	6.00	5.75	5.50	5.25	5.00
P THANKSGIVING PINK. Amaranth. M. Ref. Pinch 7-24	11-23	2.75	5.20	4.95	4.65	4.40	4.15
P HELEN FRICK. Rose-pink. M. Inc. Pinch 7-28	11-23	2.75	5.20	4.95	4.65	4.40	4.15
EDWIN SEIDEWITZ. Lavender. M. Inc. Pinch 7-28	11-25	2.75	5.20	4.95	4.65	4.40	4.15
PINK MISTLETOE. Lavender. M. Inc. Pinch 8-1	12-10	3.00	5.70	5.40	5.10	4.80	4.50

BRONZE AND RED

Best bronze and reds for August, *Detroit News; September, *Detroit News; October, *Indianapolis Bronze; November, Indianapolis Bronze, Mrs. Roy; Thanksgiving, Gladys Pearson; December, Bronze Mistletoe.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
HILDA BERGEN. Dark reddish bronze. M. Inc. Pinch 7-14	10-25	\$3.00	\$5.70	\$5.40	\$5.10	\$4.80	\$4.50
GLITTERS. Deep reddish orange. Int. Ref. Pinch 7-16	10-28	3.00	5.70	5.40	5.10	4.80	4.50
IVANHOE. Reddish bronze. S. Inc. Pinch 7-16	11-1	3.00	5.70	5.40	5.10	4.80	4.50
S APRICOT QUEEN. Orange-bronze. Int. Inc. Pinch 7-16	11-1	3.00	5.70	5.40	5.10	4.80	4.50
S DETROIT NEWS. Reddish bronze. M. Inc. Pinch 7-19	11-5	3.00	5.70	5.40	5.10	4.80	4.50
S INDIANAPOLIS BRONZE. Buff-bronze. M. Inc. Pinch 7-20	11-8	2.75	5.20	4.95	4.65	4.40	4.15
S BRONZE ORCHID QUEEN. Apricot-buff. L. Inc. Pinch 7-20	11-10	3.00	5.70	5.40	5.10	4.80	4.50
ANACONDA. Deep coppery red. M. Inc. Pinch 7-20	11-10	2.75	5.20	4.95	4.65	4.40	4.15
SP COPPERHEAD. (New. See cover 2 for complete description.) Large, coppery bronze decorative. Pinch 7-20	11-10	5.00	9.50	9.00	8.50	8.00	7.50
OAKDALE. (New. See cover 2 for complete description.) Buff-bronze. Pinch 7-20	11-10	5.00	9.50	9.00	8.50	8.00	7.50
S MRS. ROY. Crimson. M. Inc. Pinch 7-24	11-15	3.00	5.70	5.40	5.10	4.80	4.50
GARNET KING. Dark red. M. Ref. Pinch 7-24	11-15	3.00	5.70	5.40	5.10	4.80	4.50
S GLADYS PEARSON. Light buff-bronze. M. Inc. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
BRONZE PEARSON. Same as Oak Leaf. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
S OAK LEAF. (Bronze Pearson). M. Inc. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
P BRONZE FRICK. Light bronze. M. Inc. Pinch 7-28	11-25	2.75	5.20	4.95	4.65	4.40	4.15
MUTO'S CRIMSON. Pinch 7-28	12-5	4.00	7.60	7.20	6.80	6.40	6.00
BRONZE MISTLETOE. Buff-bronze. M. Inc. Pinch 8-1	12-10	3.00	5.70	5.40	5.10	4.80	4.50

*Starred varieties must be shaded to flower at this time.

IMPORTANT: ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE.

Pompons, Singles and Anemones

Types are abbreviated as follows: Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S—Small; M—Medium; L—Large.

S—Indicates varieties we find most suitable for shading. D—Indicates varieties suitable to grow as disbudded Pompons. P—Indicates varieties suitable for pot plants.

Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

YELLOW

Best yellows for August, *Gold Coast; September, *Gold Coast; October, *Mary Hall, Gold Coast; November, Constellation, Yellow Fellow; Thanksgiving, Goldsmith; December, Yellow Cameo; Christmas, Yellow Snow.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
S JAMES STEWART. (New. See cover 2 for complete description.) Apricot-gold Pom. Pinch 7-5	10-10	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
BRIGHT FORECAST. (New. See cover 2 for complete description.) Pinch 7-5	10-10	5.00	9.50	9.00	8.50	8.00	7.50
GOLDRUSH. (New. See cover 2 for complete description.) Pinch 7-5	10-10	5.00	9.50	9.00	8.50	8.00	7.50
LEMONADE. (New. See cover 2 for complete description.) Ivory-yellow. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50
SWEEPSTAKE. (New. See cover 2 for complete description.) S. Pom. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50
S YELLOW IRENE. Light lemon-yellow. S. Pom. Pinch 7-8	10-15	2.50	4.50	4.25	4.00	3.75	3.50
S RODELL IMPROVED. Lemon-yellow. M. Pom. Pinch 7-8	10-20	2.50	4.50	4.25	4.00	3.75	3.50
S YELLOW FIREBIRD. (New.) Bright lemon. M. Dec. Pinch 7-14	10-25	3.25	6.00	5.75	5.50	5.25	5.00
S STARBRIGHT. Golden yellow. Sgl. Pinch 7-14	10-25	4.00	7.60	7.20	6.80	6.40	6.00
S GOLD COAST. Lemon-yellow. S. Pom. Pinch 7-14	10-25	2.50	4.75	4.50	4.25	4.00	3.75
S GOLDEN HERALD. L. Dec. Pinch 7-14	10-25	2.75	5.20	4.95	4.65	4.40	4.15
ISHIDA. Semi-double yellow. Pinch 7-14	10-25	3.50	6.65	6.30	5.95	5.60	5.25
SUNBURST. Semi-double bronze-yellow. Pinch 7-14	10-25	2.50	4.75	4.50	4.25	4.00	3.75
S YELLOW DOT. Bronze center. M. Pom. Pinch 7-14	10-25	2.75	5.20	4.95	4.65	4.40	4.15
YELLOW COTTON TOP. (New.) Sport of Cotton Top. Lemon-yellow. Pinch 7-14	10-25	5.00	9.50	9.25	9.00	8.75	8.50
YELLOW ARCADIA. Pernet-yellow. M. Pom. Pinch 7-14	10-28	2.75	5.20	4.95	4.65	4.40	4.15
S YELLOW DAISY. Lemon-yellow. M. Sgl. Pinch 7-14	11-1	3.00	5.70	5.40	5.10	4.80	4.50
S SCHNEEBURG'S DAISY. (New.) Golden yellow sport of Yellow Daisy. M. Sgl. Pinch 7-15	11-1	4.00	7.60	7.20	6.80	6.40	6.00
D YELLOW DOTY. Buff-yellow. Med. L. Pom. Pinch 7-14	11-1	2.75	5.20	4.95	4.65	4.40	4.15
YELLOW SEA GULL. Light lemon-yellow. Tall. M. Pom. Pinch 7-14	11-1	2.75	5.20	4.95	4.65	4.40	4.15
S MARY L. HALL. Lemon-yellow. M. Pom. Pinch 7-14	11-1	2.50	4.75	4.50	4.25	4.00	3.75
YELLOW IZOLA. Buff-yellow. S. Anem. Pinch 7-14	11-1	2.50	4.75	4.50	4.25	4.00	3.75
YELLOW CASSANDRA. Sport. Pinch 7-20	11-5	4.00	7.60	7.20	6.80	6.40	6.00
STATELY YELLOW. Lemon. M. Pom. Pinch 7-19	11-5	2.50	4.50	4.25	4.00	3.75	3.50
BARCAROLE. Golden yellow. M. Pom. Pinch 7-20	11-5	2.75	5.20	4.95	4.65	4.40	4.15
S CRESCENDO. (New. See cover 2 for complete description.) Tall, yellow. L. Pom. Pinch 7-20	11-5	5.00	9.50	9.00	8.50	8.00	7.50
S NUGGETS. Light lemon-yellow. S. Pom. Pinch 7-20	11-5	2.25	4.25	4.00	3.80	3.60	3.35
CONSTELLATION. Yellow. M. Dec. Pinch 7-20	11-5	3.00	5.70	5.40	5.10	4.80	4.50
INDAGOLD. Golden. M. Pom. Pinch 7-20	11-7	3.50	6.65	6.30	5.95	5.60	5.25

*Starred varieties must be shaded to flower at this time.

Pompons, Singles and Anemones

YELLOW-Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
ILLINI GOLDCUP. (New. See cover 2 for complete description.) Buttercup-yellow. L. Pom. Pinch 7-20.	11-10	\$5.00	\$9.50	\$9.25	\$9.00	\$8.75	\$8.50
PIXIE. Deep golden yellow. S. Pom. Pinch 7-20	11-10	2.50	4.50	4.25	4.00	3.75	3.50
S GOLDEN CHORD. Golden yellow. Int. Pom. Pinch 7-20	11-10	4.00	7.60	7.20	6.80	6.40	6.00
S GOLDEN MENSA. Golden sport of Mensa. Sgl. Pinch 7-20	11-10	2.75	5.20	4.95	4.65	4.40	4.15
S YELLOW SHASTA. Sport of Shasta. Pinch 7-24.	11-15	2.75	5.20	4.95	4.65	4.40	4.15
PRINCETON. Orange-yellow. M. Dec. Pinch 7-24	11-15	3.00	5.70	5.40	5.10	4.80	4.50
JERSEY SUNBURST. Golden yellow. M. Sgl. Pinch 7-22	11-15	4.00	7.50	7.25	7.00	6.75	6.50
S FORTY-NINER. Round, yellow Pom. Pinch 7-24	11-15	4.00	7.60	7.20	6.80	6.40	6.00
YELLOW FELLOW. Deep lemon-yellow. M. Dec. Pinch 7-24	11-15	2.75	5.20	4.95	4.65	4.40	4.15
SUNRAY. Light lemon-yellow. M. Anem. Pinch 7-24	11-15	2.50	4.75	4.50	4.25	4.00	3.75
ILLINI BRAVE. Lemon-yellow. Button Pom. Pinch 7-22	11-16	4.00	7.60	7.20	6.80	6.40	6.00
MARY GOLD. Lemon-yellow. M. Pom. Pinch 7-24	11-17	2.50	4.50	4.25	4.00	3.75	3.50
D SUSANNE MILLER. Buff-yellow. L. Anem. Pinch 7-24	11-18	3.00	5.70	5.40	5.10	4.80	4.50
SD KLONDIKE. (New. See cover 2 for complete description.) Orange-yellow Pom. Pinch 7-24	11-20	5.00	9.50	9.00	8.50	8.00	7.50
S LOLLIPOP. (New. See cover 2 for complete description.) Lemon-yellow Pom. Pinch 7-24	11-20	5.00	9.50	9.00	8.50	8.00	7.50
SD YELLOW L. I. BEAUTY. Pinch 7-24	11-20	4.00	7.60	7.20	6.80	6.40	6.00
BOJANGLES. (New. See cover 2 for complete description.) Yellow Daisy. Pinch 7-24	11-20	5.00	9.50	9.00	8.50	8.00	7.50
D YELLOW NEVADA. Med. Anem. Pinch 7-24	11-20	3.00	5.70	5.40	5.10	4.80	4.50
TROPHY. Pinch 7-25	11-23	4.00	7.60	7.20	6.80	6.40	6.00
PD YELLOW ROLINDA. Light buff-yellow. M. Anem. Pinch 7-28	11-25	2.75	5.00	4.75	4.50	4.25	4.00
GOLDSMITH. Golden yellow. M. Dec. Pinch 7-28	11-25	3.00	5.70	5.40	5.10	4.80	4.50
GOLDEN SURPRISE. Sulphur-yellow. S. Button. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
SUNNYSIDE. Golden yellow. M. Pom. Pinch 7-28	11-25	2.75	5.20	4.95	4.65	4.40	4.15
ILLINI GOLD. Deep golden yellow. M. Pom. Pinch 7-28	11-25	3.00	5.70	5.40	5.10	4.80	4.50
CHAMPAGNE. Yellow. Int. Sgl. Pinch 7-28	11-25	4.00	7.60	7.20	6.80	6.40	6.00
GOLDEN JANE. Golden yellow. L. Sgl. Pinch 7-28	11-28	2.75	5.20	4.95	4.65	4.40	4.15
YELLOW CORDOVA. Lemon-yellow. M. Dec. Pinch 7-28	11-30	2.75	5.20	4.95	4.65	4.40	4.15
GOLDEN HARVEST. Deep gold. S. Pom. Pinch 7-28	12-1	4.00	7.60	7.20	6.80	6.40	6.00
S NOSEGAY. (New. See page 1 for complete description.) Yellow. S. Pom. Pinch 7-28	12-1	5.00	9.50	9.00	8.50	8.00	7.50
BRANDYWINE. (New. See page 1 for complete description.) Orange-yellow. Dec. Pinch 8-1	12-5	5.00	9.50	9.00	8.50	8.00	7.50
SYMMETRY. (New. See page 1 for complete description.) Int. Pom. Pinch 8-1	12-5	5.00	9.50	9.00	8.50	8.00	7.50
YELLOW CAMEO. Deep lemon-yellow. M. Pom. Pinch 8-1	12-5	2.75	5.20	4.95	4.65	4.40	4.15

IMPORTANT: ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE.

Pompons, Singles and Anemones

Types are abbreviated as follows. Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S—Small; M—Medium; L—Large.

S—Indicates varieties we find most suitable for shading. D—Indicates varieties suitable to grow as disbudded Pompons.
P—Indicates varieties suitable for pot plants.

Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

YELLOW—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
CINDERELLA. Yellow. Int. Sgl. Pinch 8-1	12-5	\$4.00	\$7.60	\$7.20	\$6.80	\$6.40	\$6.00
S GOLDTONE. (New. See page 1 for complete description.) Yellow single. Pinch 8-1	12-5	5.00	9.50	9.00	8.50	8.00	7.50
OMEGA. Lemon-yellow. M. Pom. Pinch 8-1	12-5	3.00	5.70	5.40	5.10	4.80	4.50
YELLOW RIVIERA. Sport of Riviera. Pinch 8-2	12-10	4.00	7.60	7.20	6.80	6.40	6.00
D YELLOW SUPREME. Buff-yellow. L. Anem. Pinch 8-2	12-10	3.00	5.70	5.40	5.10	4.80	4.50
DECEMBER GOLD. Deep golden yellow. M. Dec. Pinch 8-4	12-15	2.75	5.20	4.95	4.65	4.40	4.15
CHALLENGE. (New. See page 1 for complete description.) Yellow. M. Sgl. Pinch 8-4	12-15	5.00	9.50	9.00	8.50	8.00	7.50
SEQUIN. (New. See page 1 for complete description.) S. Pom. Pinch 8-4	12-15	5.00	9.50	9.00	8.50	8.00	7.50
SHAMROCK. (New. See page 1 for complete description.) L. Dec. Pinch 8-4	12-15	5.00	9.50	9.00	8.50	8.00	7.50
CHRISTMAS CHEER. Small yellow. Button. Pinch 8-4	12-18	2.50	4.75	4.50	4.25	4.00	3.75
S CORSAIR. (New. See page 1 for complete description.) L. Pom. Pinch 8-4	12-18	5.00	9.50	9.00	8.50	8.00	7.50
SUNKIST. Golden yellow. M. Sgl. Pinch 8-7	12-20	3.00	5.50	5.25	5.00	4.75	4.50
VIBRANT. Deep lemon-yellow. M. Dec. Pinch 8-4	12-20	2.75	5.20	4.95	4.65	4.40	4.15
SUNRISE. (New. See page 1 for complete description.) Yellow Pom. Pinch 8-7	12-24	5.00	9.50	9.00	8.50	8.00	7.50
GOLDEN ANNIVERSARY. Yellow Pom. Pinch 8-7	12-25	3.50	6.65	6.30	5.95	5.60	5.25
IVORY SNOW. Ivory-yellow. M. Pom. Pinch 8-7	12-25	3.00	5.70	5.40	5.10	4.80	4.50
YELLOW SNOW. Deep lemon-yellow. M. Pom. Pinch 8-7	12-25	2.50	4.75	4.50	4.25	4.00	3.75
YELLOW REVELATION. Sport. Pinch 8-7	12-25	4.00	7.50	7.25	7.00	6.75	6.50
SIREN. (New. See page 1 for complete description.) Yellow. Dec. Pinch 8-7	12-30	5.00	9.50	9.00	8.50	8.00	7.50
YULEFLAME. Yellow. Dec. Pinch 8-7	12-30	3.50	6.65	6.30	5.95	5.60	5.25
WINTERSET. Small yellow. Dec. Pinch 8-7	1-1	2.75	5.20	4.95	4.65	4.40	4.15

← FORTY-NINER
Yellow Pompon
(See Page 9)

ILLINI SNOWDRIFT →
White Decorative
(See Opposite Page)



Pompons, Singles and Anemones

WHITE

Best white for August, *Pinocchio; September, *Pinocchio; October, *Little America, Pinocchio; November, Sea Gull, Little America; Thanksgiving, Priscilla; December, Cameo; Christmas, Snow.

	Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
	MONOGRAM. (New. See page 1 for complete description.) White Daisy	10-5	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
	CLASSIC. (New. See page 1 for complete description.) Pinch 7-5	10-10	5.00	9.50	9.00	8.50	8.00	7.50
	RENOWN. (New. See page 1 for complete description.) White Daisy. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
SD	SILVER BALL. L. Pom. Pinch 7-8	10-15	2.50	4.50	4.25	4.00	3.75	3.50
	SILVERPLATE. (New. See page 1 for complete description.) Dec. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50
S	IRENE. S. Pom. Pinch 7-8	10-15	2.50	4.50	4.25	4.00	3.75	3.50
S	PRISTINE. Pure white. Int. Pom. Pinch 7-8	10-20	4.00	7.60	7.20	6.80	6.40	6.00
S	MINONG. S. Pom. Pinch 7-8	10-20	2.50	4.75	4.50	4.25	4.00	3.75
	SNOW CLOUD. White. M. Pom. Pinch 7-8	10-20	3.00	5.50	5.25	5.00	4.75	4.50
S	POPCORN. White. Int. Pom. Pinch 7-14	10-25	4.00	7.60	7.20	6.80	6.40	6.00
S	COTTON TOP. Pure white. Pinch 7-14	10-25	3.00	5.70	5.40	5.10	4.80	4.50
	CREAM DOT. Cream, apricot center. M. Pom. Pinch 7-14	10-25	2.50	4.75	4.50	4.25	4.00	3.75
S	PINOCCHIO. S. Pom. Pinch 7-14	10-25	2.75	5.20	4.95	4.65	4.40	4.15
S	SONGSTER. (New. See page 1 for complete description.) Int. Pom. Pinch 7-14	10-25	5.00	9.50	9.00	8.50	8.00	7.50
S	ARCADIA. M. Pom. Pinch 7-14	10-28	2.75	5.20	4.95	4.65	4.40	4.15
S	SEA GULL. Cream-white. M. Pom. Pinch 7-14	11-1	2.75	5.20	4.95	4.65	4.40	4.15
	WHITE CALIFORNIA DAISY. (New.) Sport. Pinch 7-14	11-1	2.50	4.75	4.50	4.25	4.00	3.75
SD	WHITE DOTY. Ivory-white. L. Pom. Pinch 7-14	11-1	2.75	5.20	4.95	4.65	4.40	4.15
S	ENCORE. Pure white. Int. Pom. Pinch 7-19	11-5	4.00	7.60	7.20	6.80	6.40	6.00
	STATELY WHITE. M. Pom. Pinch 7-19	11-5	2.50	4.50	4.25	4.00	3.75	3.50
S	HALO. (New. See page 1 for complete description.) Early white Daisy. Pinch 7-19	11-5	5.00	9.50	9.00	8.50	8.00	7.50
D	WHITE ANEMONE. M. Anem. Pinch 7-19	11-5	3.00	5.70	5.40	5.10	4.80	4.50
S	KOLOWA. (New. See page 1 for complete description.) M. Sgl. Pinch 7-19	11-5	5.00	9.50	9.00	8.50	8.00	7.50
S	REV. BUSHNELL. Cream-white. M. Pom. Pinch 7-20	11-8	3.00	5.70	5.40	5.10	4.80	4.50
	VESPER. M. Pom. Pinch 7-20	11-10	2.75	5.20	4.95	4.65	4.40	4.15
S	WHITE MENSA. Ivory-white. M. Sgl. Pinch 7-20	11-10	2.75	5.20	4.95	4.65	4.40	4.15
SP	LITTLE AMERICA. M. Anem. Pinch 7-20	11-10	2.25	4.25	4.00	3.80	3.60	3.35
S	FELICITY. Clear white. Anem. Pinch 7-20	11-10	3.50	6.65	6.30	5.95	5.60	5.25
S	MOONGLOW. White. M. Pom. Pinch 7-20	11-10	4.00	7.60	7.20	6.80	6.40	6.00
	CHICAGO PEARL. Ivory-white. M. Pom. Pinch 7-22	11-15	2.50	4.75	4.50	4.25	4.00	3.75
	ILLINI SNOWDRIFT. White. Dec. Pinch 7-22	11-15	4.00	7.60	7.20	6.80	6.40	6.00
S	SHASTA. M. Anem. Pinch 7-22	11-15	2.75	5.20	4.95	4.65	4.40	4.15
SD	WHITE FREIDA. Yellow cushion. L. Anem. Pinch 7-22	11-15	2.50	4.50	4.25	4.00	3.75	3.50
	MATCHLESS. White. M. Pom. Pinch 7-22	11-15	2.75	5.20	4.95	4.65	4.40	4.15
D	WHITE NORMA. White suffused with pink. L. Anem. Pinch 7-25	11-18	3.00	5.70	5.40	5.10	4.80	4.50
SD	LONG ISLAND BEAUTY. White, yellow cushion. L. Anem. Pinch 7-24	11-20	2.50	4.75	4.50	4.25	4.00	3.75
	SEAFOAM. M. Pom. Pinch 7-24	11-20	2.50	4.75	4.50	4.25	4.00	3.75
S	SNOWFLURRY. (New. See page 1 for complete description.) S. Pom. Pinch 7-24	11-20	5.00	9.50	9.00	8.50	8.00	7.50

*Starred varieties must be shaded to flower at this time.

Pompons, Singles and Anemones

Types are abbreviated as follows: Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S—Small; M—Medium; L—Large.

S—Indicates varieties we find most suitable for shading. D—Indicates varieties suitable to grow as disbudded Pompons.

P—Indicates varieties suitable for pot plants.

Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

WHITE—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
HIGHBROW. (New. See page 1 for complete description.) Ivory-white. Dec. Pinch 7-24	11-20	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
D NEVADA. White, green cushion. M. Anem. Pinch 7-24	11-20	2.75	5.20	4.95	4.65	4.40	4.15
PRISCILLA. M. Pom. Pinch 7-24	11-23	2.75	5.20	4.95	4.65	4.40	4.15
ILLINI BOUNTIFUL. White. Dec. Pinch 7-28	11-25	4.00	7.60	7.20	6.80	6.40	6.00
WHITE USONA. M. Pom. Pinch 7-28	11-25	3.50	6.65	6.30	5.95	5.60	5.25
WHITE YULETIDE. Short. M. Pom. Pinch 7-28	11-25	2.75	5.00	4.75	4.50	4.25	4.00
AMY. Pinch 7-28	11-28	4.00	7.60	7.20	6.80	6.40	6.00
S PARAMOUNT. (New. See page 1 for complete description.) Int. Pom. Pinch 7-28	11-28	5.00	9.50	9.00	8.50	8.00	7.50
D WHITE VALENCIA. Sport of Valencia. Pinch 7-28.	11-28	4.00	7.60	7.20	6.80	6.40	6.00
CRYSTAL BEAUTY. Pure white. Pom. Pinch 7-28..	11-28	4.00	7.60	7.20	6.80	6.40	6.00
CORDOVA. Cream-white. M. Dec. Pinch 7-28	11-30	2.75	5.20	4.95	4.65	4.40	4.15
BELRAY. (New. See page 1 for complete description.) L. Pom. Pinch 8-1	12-5	5.00	9.50	9.00	8.50	8.00	7.50
SPANGLES. (New. See page 1 for complete description.) S. Pom. Pinch 8-1	12-5	5.00	9.50	9.00	8.50	8.00	7.50
CAMEO. Ivory-white. Med. Pom. Pinch 8-1	12-5	2.75	5.20	4.95	4.65	4.40	4.15
ROYAL QUEEN. M. Pom. Pinch 7-31	12-5	2.50	4.75	4.50	4.25	4.00	3.75
S FORTUNE. (New. See page 1 for complete description.) White. Pom. Pinch 8-2	12-10	5.00	9.50	9.00	8.50	8.00	7.50
SILVERSMITH. Pure white. Dec. Pinch 8-1	12-10	4.00	7.60	7.20	6.80	6.40	6.00
ILLINI STARBURST. (New. See page 1 for complete description.) Creamy white, quilled type. Pinch 8-1.	12-10	5.00	9.50	9.25	9.00	8.75	8.50
YUKON. M. Sgl. Pinch 8-1	12-10	2.50	4.75	4.50	4.25	4.00	3.75
D WHITE SUPREME. L. Anem. Pinch 8-2	12-10	3.00	5.70	5.40	5.10	4.80	4.50
SNOWCREST. White. M. Dec. Pinch 8-1	12-12	4.00	7.60	7.20	6.80	6.40	6.00
GARZA. M. Anem. Pinch 8-4	12-15	2.75	5.20	4.95	4.65	4.40	4.15
SNOWCAP. White. M. Pom. Pinch 8-4	12-15	4.00	7.60	7.20	6.80	6.40	6.00
HEIRLOOM. (New. See page 1 for complete description.) Dec. Pom. Pinch 8-7	12-20	5.00	9.50	9.00	8.50	8.00	7.50
SNOW. Ivory-white. M. Pom. Pinch 8-7	12-25	2.50	4.75	4.50	4.25	4.00	3.75
REVELATION. M. Pom. Pinch 8-7	12-25	2.25	4.25	4.00	3.80	3.60	3.35

PINK

Best pinks for August, *Carolyn Yosick; September, *Carolyn Yosick; October, *Masterpiece, Carolyn Yosick; November, Thyra, Masterpiece; Thanksgiving, Minuet; December, Riviera; Christmas, Minstrel.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
FASHION. (New. See page 2 for complete description.) Two-toned salmon and rosewood. Pinch 7-4	10-10	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
JOYBRINGER. (New. See page 2 for complete description.) Salmon-rose. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
SWEETHEART. (New. See page 2 for complete description.) Lavender-pink Daisy. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
SERENADE. (New. See page 2 for complete description.) Magenta-pink Daisy. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
S JEWEL. Lavender. S. Pom. Pinch 7-8	10-15	3.00	5.70	5.40	5.10	4.80	4.50

*Starred varieties must be shaded to flower at this time.

Pompons, Singles and Anemones

PINK—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
ADAGIO. (New. See page 2 for complete description.) Raspberry-rose Pompon. Tall. Pinch 7-8	10-15	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
SALUTE. (New. See page 2 for complete description.) Deep orchid Daisy. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50
DARK PK. JEWEL. Deep lavender. S. Pom. Pinch 7-8.	10-15	3.00	5.70	5.40	5.10	4.80	4.50
S CAROLYN YOSICK. Lavender-pink. S. Dec. Pinch 7-8	10-20	3.00	5.70	5.40	5.10	4.80	4.50
CAPT. COOK. Deep rose-pink. M. Pom. Pinch 7-10.	10-23	2.50	4.50	4.25	4.00	3.75	3.50
ECSTASY. Lavender. L. Button Pom. Pinch 7-14	10-25	2.75	5.00	4.75	4.50	4.25	4.00
S REWARD. (New. See page 2 for complete description.) Deep pink Daisy. Pinch 7-14	10-25	5.00	9.50	9.00	8.50	8.00	7.50
BETTY ROSE. Pink. Medium large. Pinch 7-14	10-25	3.00	5.70	5.40	5.10	4.80	4.50
S JESSIE. Light lavender. M. Pom. Pinch 7-14	10-25	2.75	5.20	4.95	4.65	4.40	4.15
S MARY McARTHUR. Pink, shaded bronze. S. Pom. Pinch 7-14	10-25	3.50	6.65	6.30	5.95	5.60	5.25
S PINK DOT. Light pink. M. Pom. Pinch 7-14	10-25	2.75	5.20	4.95	4.65	4.40	4.15
D DARK PINK DOT. (New. Photo on page 2.) Deep pink sport. Pinch 7-14	10-25	4.00	7.60	7.20	6.80	6.40	6.00
PINK SPRITE. L. Button. Light orchid. Pinch 7-14 ..	10-25	4.00	7.60	7.20	6.80	6.40	6.00
OCTOBER PINK. Light lavender. M. Sgl. Pinch 7-14.	10-28	3.00	5.70	5.40	5.10	4.80	4.50
S BALLERINA. Pink. Int. Sgl. Pinch 7-16	11-1	4.00	7.60	7.20	6.80	6.40	6.00
DREAM BOAT. Pinch 7-16	11-1	3.00	5.70	5.40	5.10	4.80	4.50
IZOLA. Amaranth. S. Anem. Pinch 7-16	11-1	2.50	4.75	4.50	4.25	4.00	3.75
D LILLIAN DOTY. Light rose-pink. L. Pom. Pinch 7-16.	11-1	2.75	5.20	4.95	4.65	4.40	4.15
PINK CALIFORNIA DAISY. Pinch 7-16	11-1	2.50	4.75	4.50	4.25	4.00	3.75
W. H. BUCKINGHAM. Rose. M. Sgl. Pinch 7-15 ..	11-1	2.75	5.00	4.75	4.50	4.25	4.00
D DARK PINK BULKELEY. Dark rose-pink. M. Pom. Pinch 7-20	11-8	3.00	5.70	5.40	5.10	4.80	4.50
PS THYRA. Lavender. L. Pom. Pinch 7-19	11-10	2.75	5.20	4.95	4.65	4.40	4.15
D TUXEDO. Pink. Large Anem. Pinch 7-19	11-10	3.00	5.70	5.40	5.10	4.80	4.50
LINDA LOU. Pink, yellow cushion. Med. Int. Anem. Pinch 7-19	11-10	2.75	5.20	4.95	4.65	4.40	4.15
S MASTERPIECE. Tourmaline-pink. M. Pom. Pinch 7-22	11-15	2.50	4.75	4.50	4.25	4.00	3.75
S SOPRANO. Pink. Int. Sgl. Pinch 7-22	11-15	4.00	7.60	7.20	6.80	6.40	6.00
S TAFFETA. (New. See page 2 for complete description.) Deep pink. Decorative. Pinch 7-22	11-15	5.00	9.50	9.00	8.50	8.00	7.50
P ORCHID BEAUTY. Orchid, golden cushion. M. Anem. Pinch 7-22	11-15	2.75	5.20	4.95	4.65	4.40	4.15
D FREIDA. Light lavender, yellow cushion. L. Anem. Pinch 7-22	11-15	2.50	4.50	4.25	4.00	3.75	3.50
S BROCADE. Cameo-pink. M. Sgl. Pinch 7-24	11-15	2.50	4.75	4.50	4.25	4.00	3.75
D NORMA. Pink petals, salmon cushion. L. Anem. Pinch 7-25	11-18	3.00	5.70	5.40	5.10	4.80	4.50
D DARK PINK NORMA. Deep lavender. L. Anem. Pinch 7-25	11-18	3.00	5.70	5.40	5.10	4.80	4.50
D PINK LONG ISLAND BEAUTY. Pink sport of L. I. Beauty. Pinch 7-24	11-20	4.00	7.60	7.20	6.80	6.40	6.00
S PINKY. (New. See page 2 for complete description.) Pink. Int. Dec. Pinch 7-24	11-20	5.00	9.50	9.00	8.50	8.00	7.50
MINUET. Mauve to rose-pink. M. Pom. Pinch 7-28..	11-25	2.75	5.20	4.95	4.65	4.40	4.15

B E T T E R M U M S



F O R F L O R I S T S

Pompons, Singles and Anemones

Types are abbreviated as follows: Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S—Small; M—Medium; L—Large.

S—Indicates varieties we find most suitable for shading. D—Indicates varieties suitable to grow as disbudded Pompons.

P—Indicates varieties suitable for pot plants.

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Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

PINK—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
PS MAJORETTE. (New. See page 2 for complete description.) Pink. S. Anem. Pinch 7-28	11-25	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
HASEGAWA PINK. Lavender. M. Sgl. Pinch 7-28 ..	11-25	2.50	4.50	4.25	4.00	3.75	3.50
PD BEAUTIFUL LADY. Lavender. L. Anem. Pinch 7-28.	11-25	2.75	5.20	4.95	4.65	4.40	4.15
USONA. Lavender. M. Pom. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75
ORCHIS. Pinch 7-28	11-28	4.00	7.60	7.20	6.80	6.40	6.00
D VALENCIA. Orchid-pink. L. Sgl. Pinch 7-28	11-28	2.75	5.20	4.95	4.65	4.40	4.15
D DARK PINK VALENCIA. Orchid-pink. M. Sgl. Pinch 7-28	11-28	2.75	5.20	4.95	4.65	4.40	4.15
D ENCHANTRESS. Deep pink. L. Anem. Pinch 8-1.	12-5	3.00	5.70	5.40	5.10	4.80	4.50
D DARK ENCHANTRESS. (New.) Sport of Enchantress. L. Anem. Pinch 8-1	12-5	4.00	7.60	7.20	6.80	6.40	6.00
RIVIERA. Luminous pink. M. Dec. Pinch 8-1	12-10	2.75	5.20	4.95	4.65	4.40	4.15
DARK PINK RIVIERA. Sport of Riviera. Pinch 8-1 ..	12-10	4.50	8.50	8.25	8.00	7.75	7.50
D DARK PK. SUPREME. Lavender. L. Anem. Pinch 8-2.	12-10	3.00	5.70	5.40	5.10	4.80	4.50
CORONET. (New. See page 2 for complete description.) Dark pink. Int. Sgl. Pinch 8-1	12-10	5.00	9.50	9.00	8.50	8.00	7.50
DEBUTANTE. (New. See page 2 for complete description.) Large pink single. Pinch 8-1	12-10	5.00	9.50	9.00	8.50	8.00	7.50
ILLINI CAMILLE. (New. See page 2 for complete description.) Deep flesh-pink with yellow center. Single. Pinch 8-1	12-10	5.00	9.50	9.25	9.00	8.75	8.50
ROSALIND. Rose-pink. M. Sgl. Pinch 8-5	12-20	2.50	4.75	4.50	4.25	4.00	3.75
MINSTREL. Lavender-pink. Pom. Pinch 8-7	12-20	3.50	6.65	6.30	5.95	5.60	5.25
DEFIANCE. True orchid-pink. Dec. Pom. Pinch 8-7.	12-20	4.00	7.60	7.20	6.80	6.40	6.00
MEDALLION. (New. See page 2 for complete description.) Pink. Int. Pom. Pinch 8-7	12-20	5.00	9.50	9.00	8.50	8.00	7.50
PINK TREASURE ISLAND. Light lavender. M. Dec. Pinch 8-7	12-20	2.50	4.75	4.50	4.25	4.00	3.75

BRONZE AND RED

Best bronze and reds for August, *Firebird; September, *Seneca; October, *Bronze Masterpiece; November, Red Rust, Bronze Masterpiece; Thanksgiving, Bronze Goldsmith; December, Debonair; Christmas, Christmas Star.

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
MARIONETTE. (New. See page 2 for complete description.) Rust-red Pompon	9-25	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
BAMBOO. (New. See page 2 for complete description.) Buff-bronze Daisy. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
CALICO. (New. See page 2 for complete description.) Coral-bronze Daisy. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
FIRESIDE. (New. See page 2 for complete description.) Burnt orange and salmon decorative. Pinch 7-4	10-10	5.00	9.50	9.00	8.50	8.00	7.50
NOKOMIS. (New. See page 3 for complete description.) Bronze. L. Dec. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50
NOCTURNE. (New. See page 2 for complete description.) Crimson Pom. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50
ROBINHUE. (New. See page 3 for complete description.) Large red decorative. Pinch 7-8	10-15	5.00	9.50	9.00	8.50	8.00	7.50

*Starred varieties must be shaded to flower at this time.



BUTTERSCOTCH
Golden bronze. See below.



ILLINI CAMILLE
Deep flesh-pink. See page 14.



RED DOT
Yellow-bronze, red center. See below.

Pompons, Singles and Anemones

BRONZE AND RED—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
WITCHERY. (New. See page 2 for complete description.) Golden bronze decorative. Pinch 7-8	10-15	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
S ADELAIDE. Dark reddish bronze. S. Pom. Pinch 7-12.	10-23	2.75	5.00	4.75	4.50	4.25	4.00
S JEMIMA. Dark reddish bronze. M. Pom. Pinch 7-12.	10-23	2.75	5.00	4.75	4.50	4.25	4.00
BONTON. Bronze. M. Pom. Pinch 7-12	10-25	3.75	7.00	6.75	6.50	6.25	6.00
S BRONZE DOT. Sport of Pink Dot. Pinch 7-12	10-25	2.75	5.20	4.95	4.65	4.40	4.15
S FIREFLY. (New. See page 3 for complete description.) Early red Pom. Pinch 7-12	10-25	5.00	9.50	9.00	8.50	8.00	7.50
RED DOT. Yellow-bronze, red center. Pinch 7-12 ...	10-25	4.00	7.60	7.20	6.80	6.40	6.00
SPARKLER. Int. Br. Pom. Pinch 7-12	10-25	4.00	7.60	7.20	6.80	6.40	6.00
S FIREBIRD. Dark reddish bronze. M. Dec. Pinch 7-14.	10-25	2.50	4.75	4.50	4.25	4.00	3.75
S BUCKSKIN. (New. See page 3 for complete description.) Tawny bronze Daisy. Pinch 7-12	10-25	5.00	9.50	9.00	8.50	8.00	7.50
OCTOBER BRONZE. Light bronze. M. Sgl. Pinch 7-16	10-28	3.00	5.70	5.40	5.10	4.80	4.50
S SENECA. Orange-bronze. M. Dec. Pinch 7-14	11-1	3.00	5.70	5.40	5.10	4.80	4.50
S RED SENECA. (New.) Red sport of Seneca. M. Dec. Pinch 7-14	11-1	4.00	7.60	7.20	6.80	6.40	6.00
S BEAUREGARD. (New. See page 3 for complete description.) Reddish orange Pom. Pinch 7-14	11-1	5.00	9.50	9.00	8.50	8.00	7.50
GRENADIER. Deep red. Int. Pom. Pinch 7-14	11-1	2.75	5.20	4.95	4.65	4.40	4.15
BRONZE CALIFORNIA DAISY. Pinch 7-14	11-1	2.50	4.75	4.50	4.25	4.00	3.75
BRONZE BUCKINGHAM. Light orange-bronze. M. Sgl. Pinch 7-16	11-3	2.75	5.00	4.75	4.50	4.25	4.00
S BUTTERSCOTCH. Golden bronze. Int. Pom. Pinch 7-20	11-5	4.00	7.60	7.20	6.80	6.40	6.00
CASSANDRA. Orange-bronze. M. Pom. Pinch 7-20.	11-5	2.75	5.20	4.95	4.65	4.40	4.15
S RED RUST. Reddish bronze. L. Pom. Pinch 7-20.	11-5	3.00	5.70	5.40	5.10	4.80	4.50
S MAGICIAN. (New. See page 3 for complete description.) Bronze. L. Pom. Pinch 7-20	11-5	5.00	9.50	9.00	8.50	8.00	7.50
S RED DAISY. Deep red. M. Sgl. Pinch 7-14	11-5	3.00	5.70	5.40	5.10	4.80	4.50
S RUBICON. Bronze-red. Dec. Pom. Pinch 7-20	11-5	4.00	7.60	7.20	6.80	6.40	6.00
BITTERSWEET. Bittersweet-red. M. Sgl. Pinch 7-19.	11-8	2.75	5.20	4.95	4.65	4.40	4.15
PS BRONZE THYRA. (New.) Sport of Thyra. L. Pom. Pinch 7-19	11-10	4.00	7.60	7.20	6.80	6.40	6.00

B E T T E R M U M S



F O R F L O R I S T S

Pompons, Singles and Anemones

Types are abbreviated as follows: Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S—Small; M—Medium; L—Large.

S—Indicates varieties we find most suitable for shading. D—Indicates varieties suitable to grow as disbudded Pompons. P—Indicates varieties suitable for pot plants.

Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 4. No orders for less than 50 rooted cuttings of a variety accepted. Minimum total order, 500 cuttings.

BRONZE AND RED—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
S CHANTICLEER. (New. See page 3 for complete description.) Reddish bronze. L. Pom. Pinch 7-19	11-10	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50
S CHEVRON. (New. See page 3 for complete description.) Intense red Pom. Pinch 7-19	11-10	5.00	9.50	9.00	8.50	8.00	7.50
S SAMOVAR. Rosewood-bronze. Dec. Pom. Pinch 7-19. NAVAHO. Deep crimson. M. Pom. Pinch 7-19	11-10	4.00	7.60	7.20	6.80	6.40	6.00
SYLVANNA. Orange-bronze. M. Sgl. Pinch 7-19	11-10	2.75	5.20	4.95	4.65	4.40	4.15
D BRONZE TUXEDO. Buff. Med. L. Anem. Pinch 7-19. D THE TITAN. Scarlet-crimson. L. Anem. Pinch 7-19. S GOLD BRAID. (New. See page 3 for complete description.) Two-toned bronze Pom. Pinch 7-19	11-10	3.00	5.70	5.40	5.10	4.80	4.50
BRONZE BROCADE. Apricot-salmon sport of Brocade. Pinch 7-22	11-15	4.50	8.50	8.25	8.00	7.75	7.50
S BRONZE MASTERPIECE. Rosewood-bronze. M. Pom. Pinch 7-22	11-15	2.50	4.75	4.50	4.25	4.00	3.75
S DARK BRONZE MASTERPIECE. (New.) Sport. M. Pom. Pinch 7-22	11-15	4.00	7.60	7.20	6.80	6.40	6.00
S PARAGON. (New. See page 3 for complete description.) Red Pom. Pinch 7-22	11-15	5.00	9.50	9.00	8.50	8.00	7.50
RADIANT. Bright red. Med. Int. Pom. Pinch 7-22	11-15	3.00	5.70	5.40	5.10	4.80	4.50
P GYPSY. Light reddish bronze. S. Anem. Pinch 7-22. RED PRINCETON. Brazil-red. M. Dec. Pinch 7-24. ILLINI HONEY. Light bronze. Button Pom. Pinch 7-23	11-15	2.75	5.20	4.95	4.65	4.40	4.15
ILLINI REDHEAD. Red-bronze. Button Pom. Pinch 7-23	11-15	3.00	5.70	5.40	5.10	4.80	4.50
P NOVEMBER BRONZE. Orange-bronze. Med. Pom. Pinch 7-23	11-17	4.00	7.60	7.20	6.80	6.40	6.00
S THELMA. (New. See page 3 for complete description.) Orange-scarlet. Pom. Pinch 7-25	11-20	5.00	9.50	9.00	8.50	8.00	7.50
ILLINI WARRIOR. Button Pompon. Pinch 7-25	11-20	4.00	7.60	7.20	6.80	6.40	6.00
BOURBON. Rust-bronze. Int. Sgl. Pinch 7-25	11-20	4.00	7.60	7.20	6.80	6.40	6.00
RUSTICON. Rust-red. M. Pom. Pinch 7-25	11-20	2.75	5.20	4.95	4.65	4.40	4.15
CATHERINE. Reddish bronze. M. Dec. Pinch 7-25. LEGAL TENDER. Bronze and gold. M. Dec. Pinch 7-24	11-20	2.50	4.50	4.25	4.00	3.75	3.50
CARNELIA. Red. Short. L. Sgl. Pinch 7-25	11-20	3.00	5.70	5.40	5.10	4.80	4.50
S MRS. DEWEY. (New. See page 3 for complete description.) Deep bronze single. Pinch 7-25	11-20	5.00	9.50	9.00	8.50	8.00	7.50
CAROUSEL. (New. See page 3 for complete description.) Coral-bronze Daisy. Pinch 7-25	11-20	5.00	9.50	9.00	8.50	8.00	7.50
D RED ROLINDA. Deep reddish bronze. M. Anem. Pinch 7-24	11-23	2.75	5.20	4.95	4.65	4.40	4.15
BRISTOLITE. Orange-bronze. M. Pom. Pinch 7-28	11-25	3.00	5.70	5.40	5.10	4.80	4.50
FESTIVAL. Red. S. Sgl. Pinch 7-28	11-25	4.00	7.60	7.20	6.80	6.40	6.00
GOV. LAKE. Reddish bronze. Int. Pom. Pinch 7-28. BRONZE GOLDSMITH. Mars orange. M. Dec. Pinch 7-28	11-25	2.50	4.75	4.50	4.25	4.00	3.75

Pompons, Singles and Anemones

BRONZE AND RED—Continued

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
BRONZE MINUET. Bronze Pom. Pinch 7-28	11-25	\$3.50	\$6.65	\$6.30	\$5.95	\$5.60	\$5.25
YOLANDA. Orange-bronze. S. Anem. Pinch 7-28 ...	11.25	2.50	4.50	4.25	4.00	3.75	3.50
RED BRISTOLITE. (New.) Bronze-red sport. Pinch 7-28	11-25	3.00	5.70	5.40	5.10	4.80	4.50
D APRICOT VALENCIA. L. Single. Pinch 7-28	11-28	2.75	5.20	4.95	4.65	4.40	4.15
S INDIAN HEAD. (New. See page 3 for complete description.) Reddish apricot-bronze. Sgl. Pinch 7-28.	11-28	5.00	9.50	9.00	8.50	8.00	7.50
HINDUSTAN. Pinch 7-28	11-28	3.50	6.65	6.30	5.95	5.60	5.25
D CRIMSON VALENCIA. (New) Sport of Valencia. L. Sgl. Pinch 7-28	11-28	4.00	7.60	7.20	6.80	6.40	6.00
HARMONY. Orange-brown. Pom. Pinch 7-28	11-30	2.75	5.20	4.95	4.65	4.40	4.15
FALCON. (New. See page 3 for complete description.) Reddish bronze. M. Pom. Pinch 7-28	12-1	5.00	9.50	9.00	8.50	8.00	7.50
MAHOGANY VIKING. Mahogany-bronze. M. Sgl. Pinch 7-28	12-1	3.00	5.70	5.40	5.10	4.80	4.50
GALAXY. Bronze. Int. Sgl. Pinch 7-28	12-5	4.00	7.60	7.20	6.80	6.40	6.00
DAZZLER. (New. See page 3 for complete description.) Coppery bronze. Anem. Pinch 7-28	12-5	5.00	9.50	9.00	8.50	8.00	7.50
D BRONZE SUPREME. Bronze sport of Supreme. L. Anem. Pinch 8-1	12-10	3.00	5.70	5.40	5.10	4.80	4.50
D RED SUPREME. Red sport of Supreme. L. Anem. Pinch 8-1	12-10	4.50	8.50	8.25	8.00	7.75	7.50
CAVALCADE. Mandarin-red. M. Pom. Pinch 8-1 ..	12-10	3.25	6.00	5.75	5.50	5.25	5.00
DEBONAIR. Crimson-red. L. Pom. Pinch 8-1	12-10	2.75	5.20	4.95	4.65	4.40	4.15
BRONZE RIVIERA. Sport of Riviera. Pinch 8-1 ...	12-10	4.00	7.60	7.20	6.80	6.40	6.00
PAGEANTRY. (New. See page 3 for complete description.) Red Pom. Pinch 8-1	12-10	5.00	9.50	9.00	8.50	8.00	7.50
SARONG. Crimson-scarlet. M. Sgl. Pinch 8-4	12-15	3.00	5.70	5.40	5.10	4.80	4.50
HOLIDAY. Wide-petaled red. Int. Sgl. Pinch 8-4	12-15	4.00	7.60	7.20	6.80	6.40	6.00
BRONZE MINSTREL. (New.) Sport of Minstrel. Pom. Pinch 8-7	12-20	4.00	7.60	7.20	6.80	6.40	6.00
CHRISTMAS GREETING. (New. See page 3 for complete description.) Red. L. Dec. Pinch 8-7	12-20	5.00	9.50	9.00	8.50	8.00	7.50
CHRISTMAS STAR. Scarlet-red. M. Sgl. Pinch 8-7.	12-20	3.50	6.65	6.30	5.95	5.60	5.25
P CLARET. (New. See page 3 for complete description.) Brilliant red Daisy. Pinch 8-7	12-20	5.00	9.50	9.00	8.50	8.00	7.50
MERRYMAKER. Crimson-red. Sgl. Pinch 8-7	12-20	4.00	7.60	7.20	6.80	6.40	6.00

Spider Varieties

Name and Description	Matures	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500 up per 100
KAY TASHIMA. White. Pinch 7-14	10-25	\$3.50	\$6.50	\$6.25	\$6.00	\$5.75	\$5.50
RED SPIDER. Magenta. Pinch 7-14	10-25	3.50	6.50	6.25	6.00	5.75	5.50
P QUEEN'S LACE. White. Pinch 7-14	11-1	4.00	7.60	7.20	6.80	6.40	6.00
LORRAINE. Yellow. Pinch 7-14	11-1	4.00	7.60	7.20	6.80	6.40	6.00
MRS. R. A. WALKER. Deep lavender. Pinch 7-14 ..	11-1	3.50	6.50	6.25	6.00	5.75	5.50
YELLOW LACE. (New.) Yellow sport of Queen's Lace. Pinch 7-14	11-1	4.00	7.60	7.20	6.80	6.40	6.00
SUE SALLY JONES. Golden. Pinch 7-19	11-5	3.50	6.50	6.25	6.00	5.75	5.50
WHITE RAYONANTE. White. Pinch 7-19	11-5	3.00	5.70	5.40	5.10	4.80	4.50
MAMORU. Buff-bronze. Pinch 7-19	11-5	2.75	5.20	4.95	4.65	4.40	4.15
MARY GARDEN. (New. See cover 2 for complete description.) Pink. Pinch 7-19	11-5	5.00	9.50	9.00	8.50	8.00	7.50
YELLOW RAYONANTE. Yellow. Pinch 7-20	11-5	3.00	5.70	5.40	5.10	4.80	4.50
P PEGGY ANN HOOVER. Pink. Pinch 7-20	11-10	3.50	6.50	6.25	6.00	5.75	5.50

Garden (HARDY) Varieties

For the first time we are confident of being able to fill all orders for garden varieties this year. Garden Mums are finding new uses almost every year. Have you considered using garden varieties as Mother's Day pot plants? Detailed instructions for bringing them into flower have been worked out at Cornell University at Ithaca, New York. Write to them for cultural directions and varieties that are suitable. Some of the garden varieties make excellent pot plants, and of course there is the added advantage of being able to move the plants outdoors in the garden for a fall crop of flowers.

We have included several new varieties on our list this year. Better try them.

C—Indicates varieties suitable for cutting. P—Indicates varieties suitable for pots.

We are happy to announce that, through special arrangements with the introducers, we are able to propagate and offer to our Mum cutting customers the following two excellent garden varieties. Both rate in our trials, as well as in plantings the country over, a place in any list of the dozen finest garden varieties. Both flower in the early to mid-season group, are vigorous growers, uniform and free flowering, and are outstanding in their color classes. Your collection of garden varieties will not be complete without Fred F. Rockwell or Mme. Chiang Kai-Shek. Both these varieties are being grown under license from the patent owner and sold subject to all patent restrictions.

Fred F. Rockwell (Bristol Nurseries). Brilliant bronze-scarlet color; quite frost resistant. Compact, upright grower, fine for outdoor garden cutting or bedding. A really outstanding garden subject, both because of its brilliant fall color and because of its vigorous, uniform growth.

Mme. Chiang Kai-Shek (Wayside Gardens). A brilliant deep golden color. Perfectly formed, formal type Pompon flower. Habit spreading to 2 ft. wide by 2 to 2½ ft. tall. Flowers middle to latter part of September. Very resistant to frost and bad weather.

PRICES above two varieties, each: \$25.00 per 100; minimum order 50 cuttings.

Name and Description	50 per 50	100-250 per 100	300-450 per 100	500 up per 100
ACHIEVEMENT. Deep salmon-pink. Short. Sept. 20	\$3.25	\$6.00	\$5.75	\$5.50
ADIRONDA. Bright bronze Pompon. Short. Oct. 10	3.00	5.50	5.25	5.00
C AIR-WAY DEBUT. Golden bronze, overcast flaming orange. 3-inch flower. Medium. Oct. 10	3.25	6.00	5.75	5.50
PC ALLEGRO. Shrimp-pink. Tall. Oct. 15	3.00	5.70	5.40	5.10
C AMBER GLOW. Brilliant rosy bronze. Tall. Oct. 8	3.25	6.00	5.75	5.50
AMBROSIA. Peach with undertones of rose and bronze. Medium. Sept. 6	4.00	7.50	7.25	7.00
P ARGONNE. Amaranth-purple Pompon. Tall. Oct. 5	4.00	7.60	7.20	6.80
AUTUMN SONG. Outstanding large wine-rose. Medium. Sept. 12	3.50	6.50	6.25	6.00
AVALANCHE. Snow-white; large flowers. Tall. Oct. 5	3.00	5.70	5.40	5.10
AVIATOR. Dark reddish bronze. Small Pompon. Oct. 23	3.00	5.70	5.40	5.10
BAMBI. Fawn-yellow with amber center. Medium. Sept. 14	3.25	6.00	5.75	5.50
C BARBARA SMALL. Pinkish lavender. Tall. Sept. 10	3.25	6.00	5.75	5.50
C BEACON. Large coral-apricot Decorative. Tall. Oct. 15	5.00	9.50	9.25	9.00
PC BETTY. Upright apple-blossom-pink with deep rose center. Tall. Sept. 28	3.25	6.00	5.75	5.50
BOKHARA. Soft crimson and wine shades. Full double. Medium. Oct. 10	4.00	7.60	7.20	6.80
C BONFIRE. A fine frost-resistant double red. Tall. October 1	2.75	5.00	4.75	4.50
C BRONZE PYRAMID. Orange-bronze, large flowers, wiry stems. Tall. Oct. 15	3.25	6.00	5.75	5.50
C BURGUNDY. Large double wine-red. Tall. Oct. 5	2.75	5.00	4.75	4.50
BUTTERBALL. Butter-yellow. Low, compact plant. Medium. Sept. 1	3.25	6.00	5.75	5.50

MINIMUM ORDER 500 CUTTINGS, MINIMUM QUANTITY FURNISHED OF
ANY ONE VARIETY, 50 CUTTINGS.

Garden (HARDY) Varieties

C—Indicates varieties suitable for cutting. P—Indicates varieties suitable for pots.

Name and Description	50 per 50	100-250 per 100	300-450 per 100	500 up per 100
CALCITE. White with pale yellow center. Heavy bloomer. Medium. Sept. 15	\$3.00	\$5.50	\$5.25	\$5.00
C CANDLELIGHT. Cream-white, yellow center. Sept. 25	3.00	5.50	5.25	5.00
CAPT. JOHN SMITH. Double pink. Short. Sept. 25	2.75	5.00	4.75	4.50
C CARMELITA. (New.) Orange-apricot Decorative. Tall. Oct. 15	5.00	9.50	9.00	8.50
C CARMINE QUEEN. (New.) Carmine-red Pompon. Tall. October 10	5.00	9.50	9.00	8.50
C CARNIVAL. Glowing burnt-orange. Fully double. Tall. Oct. 10	5.00	9.50	9.25	9.00
C CATHERINE COLLINS. New, long-stemmed early yellow Pompon. Tall. Sept. 25	3.25	6.00	5.75	5.50
C CHARLES NYE. Fully double, buttercup-yellow. Tall. Sept. 25	3.00	5.70	5.40	5.10
CHIPPEWA. Bright mallow-purple. Medium. September 15	3.50	6.50	6.25	6.00
CHIQUITA. Lemon-yellow. Compact. Pompon. Medium. Oct. 5	3.25	6.00	5.75	5.50
PC CHRIS COLUMBUS. White Pompon with yellow buds. Tall. Sept. 15	3.00	5.70	5.40	5.10
P CORAL SEA. Salmon-buff suffused with coppery rose. Short. Oct. 1	2.75	5.00	4.75	4.50
COURAGEOUS. Crimson-red; double flowers. Frost-resistant. Tall. Oct. 5	3.50	6.50	6.25	6.00
C CYDONIA. Double, mahogany-red. Tall. October 5	2.75	5.00	4.75	4.50
DARK PINK JEWELL. Dark lavender Pompon. Medium. Oct. 15	3.00	5.70	5.40	5.10
DAWN ROSE. Bright medium pink, flesh color at margin. Medium. Oct. 15	5.00	9.50	9.25	9.00
C DEE DEE AHRENS. Free flowering, pure white. Tall. Sept. 15	3.00	5.50	5.25	5.00
C DEFIANCE. Golden yellow quilled petals. Tall. Sept. 17	4.00	7.50	7.25	7.00
DRIFTED SNOW. A mound of double white flowers, shaded yellow. Medium. Sept. 15	3.00	5.50	5.25	5.00
C DR. LONGLEY. Fully double, bright rose-pink. Medium. Sept. 10	5.00	9.50	9.25	9.00
P EARLY BRONZE. Orange-bronze. Small Pompon. Sept. 15	3.00	5.70	5.40	5.10
P EARLY GOLD. Golden yellow Pompon. Short. Sept. 8	4.50	8.50	8.25	8.00
P EARLY YELLOW. Light golden yellow. Small Pompon. Sept. 15	2.75	5.00	4.75	4.50
EARLY WONDER. Lavender. Medium Decorative. Sept. 25	3.00	5.70	5.40	5.10
C ELKTON. Double Pompon; blush-pink tinted with lavender. Tall. Oct. 10	3.25	6.00	5.75	5.50
C EMBER. Orange-bronze. Tall. Oct. 10	2.75	5.00	4.75	4.50
ERMINE. Large wide-petaled ivory-white. Medium. Oct. 1	5.00	9.50	9.00	8.50
C FIESTA. Orange-rust Pompon. Medium. Oct. 1	4.00	7.50	7.25	7.00
C FRAGRANT. Double white; long stems. Fine for cutting. Oct. 5	3.25	6.00	5.75	5.50
C GOBLIN. Double reddish bronze. Tall. Sept. 20	2.75	5.00	4.75	4.50
GOLDEN CARPET. Golden yellow Pompon. Short. Sept. 15	6.50	12.00	11.75	11.50
C GOLDEN HOURS. Free flowering, bright, deep lemon. Sept. 10	3.50	6.50	6.25	6.00
C GOLDELF. (New.) Bright yellow Decorative. Over 2 ft. in height. Oct. 10	5.00	9.50	9.00	8.50
HARBINGER. Fine bronze with golden tone. Medium. Sept. 8	3.25	6.00	5.75	5.50
P HEATHER BLOOM. Heather-pink Decorative. Medium. Sept. 22	3.00	5.50	5.25	5.00
PC HONEYCOMB. Small golden yellow Pompon. Medium. Sept. 25	3.00	5.70	5.40	5.10
HUNTSMAN. Brilliant crimson. 3-inch, double flowers. Tall. Oct. 10	5.00	9.50	9.25	9.00
C INSPIRATION. Large Decorative. Apricot-orange. Tall. Oct. 1	3.50	6.50	6.25	6.00
C JAMES EADIE. Double yellow; fine for cutting. Tall. Oct. 5	3.50	6.50	6.25	6.00
JEWELL. Lavender Pompon. Medium. October 15	3.00	5.70	5.40	5.10
P JUDITH ANDERSON. Golden yellow, small Pompon. Medium. Oct. 15	2.75	5.00	4.75	4.50
KARL A. REICHE. Blend of old rose and red. Medium. Sept. 25	3.25	6.00	5.75	5.50
C KATHLEEN LEHMAN. Orange-bronze Decorative. Medium. Sept. 28	6.50	12.00	11.75	11.50
KING MIDAS. Light lemon-yellow. Medium. Decorative. Sept. 30	2.75	5.00	4.75	4.50
P LAVENDER LADY. Large silvery lavender. Tall. October 8	3.50	6.50	6.25	6.00
C LAVENDER LASSIE. Pink Cushion. Short. Sept. 10	6.00	11.50	11.25	11.00
P MAESTRO. (New.) Dwarf white Pompon; compact 18-inch growth. Oct. 10	5.00	9.50	9.00	8.50
MANDALAY. Orange-bronze Pompon. Tall. Sept. 22	3.50	6.50	6.25	6.00
C MAGNIFICENT. 4-inch flowers of plum-red. Tall. Oct. 1	4.50	8.50	8.25	8.00

Garden (HARDY) Varieties

C—Indicates varieties suitable for cutting. P—Indicates varieties suitable for pots.

Name and Description	50 per 50	100-250 per 100	300-450 per 100	500 up per 100
C MEDITATION. Light jasper-red and maize-yellow. Tall. Oct. 6	\$3.50	\$6.50	\$6.25	\$6.00
C MELLOW GLOW. Peach-pink Pompon. Tall. Oct. 5	3.50	6.50	6.25	6.00
M. J. COSTELLO. Dwarf golden yellow with bronze shading. Short. Sept. 20 ..	3.25	6.00	5.75	5.50
C MODEL O' PERFECTION. White Button. Tall. Oct. 15	2.75	5.00	4.75	4.50
P MONA. (New.) Rust-bronze Pompon. Medium height. Oct. 5	5.00	9.50	9.00	8.50
MORNING GLOW. Mauve-pink Pompon. Medium. Oct. 1	3.25	6.00	5.75	5.50
P MORNING STAR. Soft primrose-yellow. Medium. Sept. 25	3.25	6.00	5.75	5.50
P MRS. DU PONT. Peach-pink tinted with rosy salmon-bronze. Tall. Oct. 5 ..	3.00	5.50	5.25	5.00
C MRS. FISCHER. Double clear white. Tall. Oct. 10	2.75	5.00	4.75	4.50
MRS. S. P. ROTAN. Double golden yellow shaded orange. Medium. Oct. 5 ..	3.25	6.00	5.75	5.50
CP NYE'S FAVORITE. Lavender-pink flowers with golden shadings. Medium. Sept. 12	4.00	7.50	7.25	7.00
OLD GOLD. An outstanding variety. Golden yellow Pompon. Medium. Sept. 20 ..	3.25	6.00	5.75	5.50
OLIVE LONGLAND. 3-inch, apricot-pink flowers. Medium. Oct. 1	2.50	4.50	4.25	4.00
P ORCHID HELEN. Orchid Decorative with dark eye. Medium. Sept. 10 ..	6.00	11.50	11.25	11.00
ORIENTAL. Double orchid. Medium. Oct. 1	2.75	5.00	4.75	4.50
P PAPER WHITE. Short white Decorative. Sept. 10	5.00	9.50	9.00	8.50
C PATRICIA LEHMAN. Peach-pink Decorative. Tall. Sept. 28	6.50	12.00	11.75	11.50
PEPITA. Eggshell-white Button Pompon; darker center. Medium. Sept. 29 ..	3.50	6.50	6.25	6.00
C PINK BEAUTY. Bright salmon-pink. Medium. Sept. 25	2.75	5.00	4.75	4.50
P POLAR ICE. Pure white. Double, 3-inch flowers. Medium. Sept. 15	3.50	6.50	6.25	6.00
C POLARIS. (New.) Golden yellow single. Tall. Oct. 5	5.00	9.50	9.00	8.50
P POMPONETTE. Excellent early yellow. Short. Sept. 15	3.00	5.50	5.25	5.00
C PURPLE STAR. Star appearance, dahlia-purple. Medium. Sept. 5	2.75	5.00	4.75	4.50
C RED GOLD. Bright red and orange-gold Pompon. Medium. Sept. 15	3.25	6.00	5.75	5.50
RED RIDING HOOD. Outstanding bright red; very frost resistant. Tall. Oct. 1 ..	3.25	6.00	5.75	5.50
P RED VELVET. Double velvety crimson. Medium. Oct. 4	3.00	5.70	5.40	5.10
P REMEMBRANCE. Large Decorative. Deep carmine. Medium. Sept. 28 ..	6.50	12.00	11.75	11.50
ROSITA. Light Persian rose, Button Pompon. Medium. Sept. 28	3.50	6.50	6.25	6.00
RUBY POMPON. Ruby-crimson. Medium. Pompon. Oct. 5	2.75	5.00	4.75	4.50
SALMON PRECOSE. (English.) Large, salmon-rose. Low growing. Short. Sept. 1	4.00	7.50	7.25	7.00
SAM WILLISTON. Fiery red, growth similar to Cushions. Short. Sept. 30 ..	2.75	5.00	4.75	4.50
SCARLET CRIMSON. Bright in color; long lasting. Medium. Sept. 20 ..	3.25	6.00	5.75	5.50
P SEPTEMBER BRONZE. Golden bronze Pompon. Frost-resistant. Medium. Sept. 12	2.75	5.00	4.75	4.50
P SEPTEMBER CHEER. Rich cherry-red. Nice, compact growth. Medium. Oct. 4 ..	2.75	5.00	4.75	4.50
P SEPTEMBER DAWN. Rose-pink Decorative. Medium. September 25	3.25	6.00	5.75	5.50
SEPTEMBER GEM. Tiny yellow button Pompon. Medium. Oct. 15	2.75	5.00	4.75	4.50
SEPTEMBER SUNSHINE. Semi-double bright yellow. Medium. Sept. 20 ..	3.50	6.50	6.25	6.00
SEQUOIA. Rich, mellow amber. Medium. October 4	2.75	5.00	4.75	4.50
SERENE. Outstanding double white with pink tint. Medium. Oct. 10	3.25	6.00	5.75	5.50
SERENITY. Creamy white, Daisy type flowers. Medium. Sept. 25	3.00	5.70	5.40	5.10
SNOWFALL. White; slight cream center. Medium. Sept. 28	3.50	6.50	6.25	6.00
PC SPELLBOUND. 3-inch decorative flowers of lavender-pink. A solid, compact bush. Medium. Sept. 25	3.00	5.70	5.40	5.10
C SUNAPEE. Double, rich yellow Pompon. Tall. Sept. 15	3.25	6.00	5.75	5.50
C SYMPHONY. Blend of mauve, coppery pink and lavender. Tall. Oct. 12 ..	2.75	5.00	4.75	4.50
TANGERINE. Large, unusual fluffy flowers of Spanish orange. Medium. Sept. 27	3.50	6.50	6.25	6.00

MINIMUM ORDER 500 CUTTINGS, MINIMUM QUANTITY FURNISHED OF
ANY ONE VARIETY, 50 CUTTINGS.

B E T T E R M U M S



F O R F L O R I S T S

Garden (HARDY) Varieties

C—Indicates varieties suitable for cutting. P—Indicates varieties suitable for pots.

Name and Description	50 per 50	100-250 per 100	300-450 per 100	500 up per 100
TAPESTRY. Rich pink. Double, 3-inch flowers. Medium. Sept. 20	\$6.00	\$11.50	\$11.25	\$11.00
THE CHIEF. Scarlet and gold. Medium. Oct. 5	2.75	5.00	4.75	4.50
P TIFFANY ROSE. Brilliant deep rose, faint cream undertone. Medium. Sept. 30	2.75	5.00	4.75	4.50
C VIOLET. Dahlia-like, incurved, deep amaranth-purple. Tall. Sept. 15	3.50	6.50	6.25	6.00
WELCOME. Early mallow-purple. Medium. Sept. 1	2.75	5.00	4.75	4.50
C WHITE BOUNTY. White Button with cream center. Tall. Sept. 15	3.75	7.00	6.75	6.50
C WHITE CLOUD. White with delicate pink shading. Tall. Sept. 25	2.75	5.00	4.75	4.50
C WHITE TOWER. Cream-white Pompon. Tall. Sept. 20	4.50	8.50	8.25	8.00
C WHITE WONDER. Ball-shaped white Pompon. Tall. Sept. 25	3.00	5.70	5.40	5.10
C WINTERSET. Large white Decorative. Medium. Oct. 1	3.25	6.00	5.75	5.50
C W. P. SNYDER. Apricot-orange and pink. Double, 2-inch flowers. Medium. Sept. 10	4.00	7.50	7.25	7.00
WYCHWOOD. Canary-yellow. Medium. Sept. 20	3.50	6.50	6.25	6.00
YELLOW AVALANCHE. Soft yellow. Sport of White Avalanche. Tall. Oct. 5	3.50	6.50	6.25	6.00
P YELLOW CHRIS COLUMBUS. (New.) Large Decorative. Bright yellow. Tall. Sept. 15	7.50	14.50	14.25	14.00
P YELLOW BLANKET. Golden yellow Button. Medium. Oct. 15	3.75	7.00	6.75	6.50
C YOUDATH'S WHITE. Large flowered, double white. Medium. Oct. 5	2.75	5.00	4.75	4.50
C ZANTHA. Double canary-yellow, ball-shaped. Medium. Sept. 30	3.25	6.00	5.75	5.50

CUSHION VARIETIES

Name and Description	50 per 50	100-250 per 100	300-450 per 100	500 up per 100
P CHAMPION CUSHION. Deep bronze. Sept. 25	\$2.75	\$5.00	\$4.75	\$4.50
P COMMANDER CUSHION. Best red Cushion. Sept. 25	2.75	5.00	4.75	4.50
P EARLY HARVEST. Mahogany-orange Cushion. Short. Sept. 8	3.50	6.50	6.25	6.00
P MAHOGANY CUSHION. Jasper-red. Short. Sept. 28	5.00	9.50	9.25	9.00
P MAJOR CUSHION. Double, deep pink; does not fade. Sept. 8	2.75	5.00	4.75	4.50
P WHITE CUSHION. White, shaded pink at center. Sept. 8	2.75	5.00	4.75	4.50
YELLOW CUSHION. Double golden yellow. Sept. 8	2.75	5.00	4.75	4.50
P YELLOW SUPREME. Double clear yellow. Best yellow Cushion. Sept. 15	3.25	6.00	5.75	5.50

SPOON VARIETIES

Name and Description	50 per 50	100-250 per 100	300-450 per 100	500 up per 100
CARDINAL SPOON. Cardinal-red, yellow tube. Oct. 1	\$4.00	\$7.50	\$7.25	\$7.00
P GOLDEN SPOON. Golden yellow. Oct. 7	2.75	5.00	4.75	4.50
P ORCHID SPOON. Orchid-pink. Oct. 10	2.75	5.00	4.75	4.50
P ROSE SPOON. Rose-pink. Oct. 10	2.75	5.00	4.75	4.50
PC WHITE SPOON. Pure white. Oct. 10	2.75	5.00	4.75	4.50
P YELLOW SPOON. Clear bright yellow. Oct. 10	2.75	5.00	4.75	4.50

COMBINATION OFFERS

SPECIAL OFFER No. 1

500 rooted cuttings, our selection; 50 each of 10 taller varieties for cutting. **\$25.00.**

SPECIAL OFFER No. 2

500 rooted cuttings, our selection; 50 each of 10 medium to short varieties for pots or bedding. **\$25.00.**

SPECIAL OFFER No. 3

500 rooted cuttings, our selection; 50 each of 5 varieties for cutting, 50 each of 5 varieties for bedding. **\$25.00.**

Chrysanthemum Culture

By Vic Ball

WHAT KIND OF SOIL?

Mums aren't fussy about soil—but there are some points that we must watch.

As a rule, a bench of soil that has grown good Snaps or Stocks or Carnations for you is a good bet for Mums. We like to steam our benches once a year. In case of Mum-Snap or Mum-Stock rotations we do so just before benching the Stocks (or Snaps). Before benching the Mums, we add 1½ or 2 wheelbarrows of rotted cattle manure per 100 sq. ft.—and 3 lbs. of 20% superphosphate.

Fresh outdoor soil may be used. **Great care must be used in selecting soils for greenhouse use**—mainly to avoid tight, non-porous, clay-like soils. We have seen soils that appeared black and good—but which turned out waxy and pasty. On gently sloping land, you'll often find the best soil washed off the rises. As a rule, a field that produces good corn, or grains, is good greenhouse soil, too. We prefer to steam even fresh soils—to get rid of weed seeds, insects—and disease spores that are plentiful in outdoor soil.

Soils that seem tight and drain poorly can sometimes be opened up and improved by addition of peats, manures, or even screened, weathered cinders. An example: we recently had a bench that showed all the symptoms of poor structure; poor drainage, cloddy hard lumps as it dried, green moss on the surface, etc. On half the bench, we removed the top 2 inches of soil, replaced it with a partly decomposed peat (pH 6.8). The peat was rototilled in with the lower 4 inches of soil. The succeeding crop of Poms made almost twice the headway where the peat had been added.

A month or so after benching, Mums should be in vigorous growth. If they seem to be holding back, and if the soil seems cloddy and poorly drained, give them a good cultivating, then let the soil dry back for a week or two. Then give them a good soaking, and they will usually get going.



Have you considered off season Mums? May and June crops are a good place to start. They're easier to grow then, production is better, and they seem generally well received at this time. Here's a house under lights—for May bloom. Herb Buhr, our greenhouse superintendent, in the foreground. See page 24 for details on off season Mum growing.

LABOR SAVING SUPPORTS

This season every Pomp—and Mum too—on our place is being supported with **one layer of wires and cross string**—no more. This represents a great economy both in material and labor compared to the old system. We see absolutely no need for 3, 4 or even more sets of wire and cross strings on Poms. We install the first (and only) set when plants are about 8-10 inches high, then each week keep sliding the layer of wires and string up—so that it is never more than 6-8 inches below the plant tops.

As for Standards, the old practice of tying a string around each plant at its base, wrapping it spirally up the stem, is too expensive for us under present conditions. One layer of wires and strings will do the job, if it is moved up regularly. However, we do find that the uprights that support this layer of wire must be some heavier than under the old system.

Besides saving many hours of laborious wiring and stringing, you'll find the one layer system makes it a lot easier to pick the flowers—especially on the Standards.

CARE OF THE CROP

1. WATERING. Lots of Mum crops are checked and hardened simply by a lack of water. Provided soil is porous and well drained, you're not likely to overdo on watering; most errors are on the too dry side. The rule of thumb: dig a trowelful well below the surface, wad up a ball of it in your hand, then drop it. If the ball breaks up, it's ready for water. If it won't even make a ball, it's much too dry! Always watch ends and edges of benches—give them an extra lick between regular waterings.

Nozzle watering and sub-irrigation both offer promise in saving labor, both have problems. Consult your state floriculture school.

2. FEEDING. In addition to the manure and phosphate at benching time, most Mums will need two or three applications of some balanced fertilizer such as Vigoro. One to two lbs. per 100 sq. ft. is usually enough each time. Generally raised beds, sandy soils need more fertilizer. Also, as growth gets up 2-3 feet high more food is called for. Soil tests are excellent; maintain medium levels of nitrates, potash, and phosphate. Well fed Mums are a deep green color; they quickly start yellowing as the food runs out.

This past summer we have fed our Mums with a small hydraulic unit (Fertil-mizer) that injects liquid fertilizer into the hose as you water. We found that a gallon jar (\$1.50) would feed two to four benches 150x4 ft. Applications made along with regular waterings about every 14 days kept our Mums greener than we've ever seen them. Cost of unit about \$60.00. Write Smith Equipment Co., 1615 N. Central Ave., Chicago, Ill. The Hozon applicator (Plant Marvel Laboratories, 12050 Parnell Ave., Chicago 28, Ill.), costs around \$1.50, does the same job, but whereas the Smith unit delivers full normal water pressure plus fertilizer, the Hozon cuts the pressure down so far that watering time is more than doubled. We always give our benches a light watering before feeding to avoid root burn.

Best pH or soil acidity level for Mums according to our experience is about neutral. Between 6.5 and 7.2 seems OK. Avoid extremes.

3. SHADE. Outdoor Mums seem not so hard and woody, and longer stemmed if grown under Aster cloth shade. Under glass, a light shade might help, especially in very hot weather, but with a moderate summer, we apply no shade at all.

4. EXCESS SOLUBLE SALTS. In extreme cases, an excess of salts in the soil can actually cause plants to wilt and die. We've seen it happen! More often, it just slows down and hardens the crop. How do the salts get into the soil? It's usually a combination of circumstances. First the grower steams his soil—releasing large quantities of nitrates, potash, etc., to the soil. Then, being

summer and hot weather, he waters heavily. His water happens to be very hard—so great quantities of water salts, carbonates, etc., are deposited in the soil. (Excess soluble salt cases usually appear in hard water areas). Then, as the crop starts to harden from this excess of salts, the grower, suspecting lack of fertilizer salts, adds more fertilizer!

Where water isn't too hard, and on well drained benches, heavy and regular leaching will sometimes remove enough of the salts to permit the crop to grow off. Only other cure is to replace the soil. By all means, don't add fertilizer.

There is a gadget available with which soils can be easily tested for excess soil salts. Write: Industrial Instruments Inc., 17 Pollock Ave., Jersey City 5, N. J. Price: \$55.00 to \$60.00.

5. TEMPERATURES. In summer just keep vents wide open except during storms. They should be open at night, too, by the way!

In firing season, 50° nights is standard, with 58° on cloudy and 65° on sunny days. To avoid blindness on later varieties, keep 60° minimum until color shows. Watch Garza, especially.

For off season flowering of Mums 60° nights is necessary. See page 24.

6. MULCHES somehow seem to do wonders for the Chrysanthemums. We mulch with a one inch layer of peat soon as plants are established. It reduces frequency of watering and feeding, and somehow they just grow better.

PINCHING AND SELECTING BUD

"Time" pinching is best. It simply means to pinch each variety on the date prescribed in this catalog. For example, Gold Lode, to be flowered at normal date is pinched July 8 (see page 5). Too early pinching sets the center flower in the spray of Pomps too low; too late has the opposite effect. On standard Mums, correct time pinching will usually eliminate formation of the crown bud.

Sometimes, due to late benching, etc., you will get off this schedule. In general, if you are going to pinch, you should do so before the plant gets 10 to 12 inches tall. Don't pinch **before** the tip has grown at least 3-4 inches. Don't pinch into hard wood.

Now, as to selecting the proper bud on the large "disbud" types. Mums send out two kinds of "buds" or growing tips:

1. CROWN. A flowering bud surrounded by non-flowering vegetative shoots.

2. TERMINAL. A flowering bud surrounded by flowering buds.

Early Mums will usually throw a crown bud in August. This is usually removed and one of the vegetative side shoots "selected" or left to grow on. All other shoots are removed. Some plants may produce another crown which may again be discarded in favor of a non-flowering shoot. Sooner or later, all plants produce a terminal from which you must select the best bud—to produce the flower.

On early varieties it's safest to remove all crowns up to August 20. Early crowns are OK on some shaded Mums. On mid-season sorts, terminals are safer. Final bud should have been selected by September 1-10; on late ones a month later. Your experience is the best guide. Keep notes.

By the way, on all large standard Mums, you must remove all the lower side growths. All the effort of the stem must go into the one bud. Some growers even practice removal of side shoots from certain Pompon varieties. Little America, for example, flowers much better if side shoots are removed and the spray is allowed to flower only 8-10 florets.

Don't cut a Mum till it's open. It will wilt in several hours if cut green. Spider Mums can be cut green and opened in water.

BLACK CLOTH SHADING

Mums, being short day plants, can be very nicely brought into bloom about a month ahead of normal date by covering them with black cloth from 5 P.M. to 7 A.M. in late summer. This actually simulates the shorter days of fall. Some pointers:

HOW TO SHADE. Simplest way is to just stretch wires over the bench—lengthwise, forming a support on which the black sateen can be draped. During the day it is simply bunched up. Be sure the wires are high enough so the flowers won't hit the cloth before you're thru shading. 6 feet or more may be needed. Some growers rig up side curtains like a shower curtain and cover the top with a strip of cloth rolled around a stick.

On rainy nights or during very hot weather, it will help in disease prevention to remove the cloth after dark and replace it again before daylight. Watch this closely if you are having disease troubles. Black sateen, 64x104 mesh is best. For best results, shade every night; missing one or two nights over the season won't be serious, but much more will simply delay flowering.

It's a good idea to crawl in under the sateen cover after it's down once a week or so. In this way you'll quickly detect any leaks where light is coming thru.

Shading should be discontinued as follows:

1. On crops to flower between June 15 and August 15, shade Mums till buds are $\frac{1}{2}$ inch. Shade Pomps till they are cut.

2. On crops to flower any other period, shade Mums only till bud is well set. Shade Pomps till center buds show color.

Here's our schedule on shaded Mums and Pomps for early fall:

TO FLOWER AUGUST 20-25

Plant rooted cuttings May 19 (6 x 6, no pinch).

Start shading: June 18.

Varieties: Gold Coast, Pinocchio, Shasta, Encore, Yellow Shasta, Carolyn Yosick, Rubicon.

TO FLOWER SEPTEMBER 15-20

Plant rooted cuttings May 15 (8 x 8).

Pinch: June 14.

Start shading: July 10.

Varieties: Gold Coast, Pinocchio, Shasta, Encore, Yellow Shasta, Carolyn Yosick, Rubicon, Seneca. Also following Mums if grown indoors or under sash: Good News, Detroit News, Jean Elizabeth, Silver Sheen.

OUTDOOR MUMS

Each season finds more Pomps, especially, flowered outdoors in early fall—in both western and eastern producing areas. Big advantage is low cost compared to greenhouse growing. Also it's cooler outdoors. Benching schedules under "Black Cloth Shading", above, apply. You must watch frost dates, but we find Pomps will stand several degrees of frost if the sateen is lowered on cold nights.

Also to produce real quality it is essential that some protection against sun and wind be provided. Regular Aster cloth (21 threads per inch) is OK. The new plastic cloths about 20 threads per inch are excellent—cost more, but last at least several years. Use the transparent shade, not the dark brown or black.

The deeper colored plastic meshes exclude so much light that they will seriously reduce production of bunches per foot. Also, our plant pathologists tell us that the plastic mesh, lacking the fuzzy quality of Aster cloth, is not nearly as effective in keeping out certain insect pests. But it does last many times longer.

To flower big Mums outdoors in the East, some protection is needed, especially during the actual flowering season. We have had good success with our so-called "Flexo-glass" houses. We build up a framework same shape as a greenhouse, using 1 or $1\frac{1}{4}$ inch pipe. Our houses are 24 ft. wide, 6 ft. gutters, and standard roof pitch. We like to provide cheesecloth over the plants during summer. Then, as color starts to show, we fit large sash of one of the many inexpensive glass substitutes over the house. By adding several lines of steam pipe, we are able to keep in production till well along in October. That permits use of some of the fine November flowering varieties. Quality generally is good. We did have some trouble this season with botrytis spotting on sash house big Mums.

Such houses may be shaded right over the roof by means of a rope and pulley arrangement.

ABOUT PREMATURE BUDDING

The symptoms: Long before the crop should normally set buds, each plant will throw buds—at tips, leaf axils, etc. Sometimes cuttings will throw buds a week or two after benching. Some varieties are worse than others.

The cure: To prevent premature budding, you must:

1. Provide additional light up to May 1, 4 hours per night thru February, 3 hours per night thru March, 2 hours thru April. Use 60 Watt bulbs 4 feet apart, 3 feet above plants.

2. Keep night temperature 50° or below as long as possible, preferably near 45°.

3. Keep growth soft—plenty of water, moderate feeding.

4. Avoid varieties susceptible to early budding. Examples: Blazing Gold, Legal Tender, Masterpiece, Silver Sheen, Constellation, Seneca, and hardy varieties generally.

Naturally, the earlier you take delivery of your cuttings, the more apt you are to have early budding troubles. Growers ordering cuttings for winter or early spring delivery (for spring and early summer flowering) must take special care to provide extra day length and cool temperatures, **starting the day the cuttings are received**. Extra susceptible varieties have even been known to initiate buds during long distance shipping under high temperatures.

HOW ABOUT THESE YEAR 'ROUND MUMS?

Any grower willing to follow the rules of temperature, day length, etc., can now flower good Mums and Pomps any month of the year. We devote space here to off season Mum growing, not because it is a research achievement, but because we believe there is a chance for profit in it—for both market and retail growers. Our own experience growing for the Chicago wholesale markets has indicated favorable reception of good off season Mums and Pomps—especially during the late spring and summer months. Furthermore, by combining accurate day length control with the new single stem method of growing, a new degree of flexibility is available to the grower. We have cut good Shasta Pomps and Indianapolis Mums in as little as 8 to 9 weeks after benching! This opens many new possibilities in rotations for the miscellaneous grower.

For an example: The time honored rotation of Mums after spring Snaps produces one crop of Mums or Pomps usually around Thanksgiving. This past season, taking ten benches that were cleared of Snaps by April 1, we cut a nice crop of Pomps and Mums in early June—then another crop in early September (from the same bed)—and had the beds ready for Snaps again by October 1. Both Pomps and Mums were grown single stem, and cuttings were banded—but, both the June crop and the September one brought more than twice as many dollars per square foot return as the former one crop that hit the glutted markets of October and November. See Grower Talks, October 1950, page 6 for details.

Flexo-glass house Mums at West Chicago, photo August 14, 1950. This and a similar house of Pompons (without Flexo-glass) were benched May 15 (5 x 6, no pinch), shaded June 15, and Silver Sheen (on the right) was cut August 15. Mefo (center) and Good News (left) came in 10 to 12 days later. The single stem growing brought the crop in several weeks earlier to a much better market—enough better to easily repay the cost of the extra cuttings. See page 26.

For several years, some authorities have predicted that over-production during these "off season" periods would soon depress prices to an unprofitable level. There have been temporary local gluts during late summer, but so far, good local stock in our experience has been on the whole well received during these periods.

HOW DOES OFF SEASON FLOWERING WORK?

Even tho lighting and shading schedules are very definite, most of us like to understand what is behind them.

Here's the theory: After benching, the plant is kept under conditions of day length and temperature that will keep it blind or vegetative—until it has developed usually around 15-18 inches of stem. Then, day length and temperature are changed so as to force it into flower—and the 18 inches of stem will normally stretch to 32-36 inches before cutting. By manipulating temperature and day length, it is possible to force a Mum into flower on a 6-inch stem—or a 10 ft. one! Ideally, most growers like about 32 inches of stem for market. Much more than that simply represents wasted effort, time in the bench.

What are the conditions that keep a Mum blind, vegetative (non-flowering)? **Mums grown at 14 hours of day length will not set bud.** In winter when days are normally only 10 hours long, the extra 4 hours are made up with electric lights.

On the other hand, **Mums grown at 11 hours of day length, and at minimum of 60 degrees, will set bud**—quite promptly. Of course, if you wish to set buds on Pomps during June when days are normally 14 hours long, you must shorten the days by applying black sateen cloth 5 PM to 7 AM.

Especially in the South, conditions of climate and temperature make the off season Mum tables not always correct. If a grower finds under his own conditions that a particular crop of Mums flowers on 5-6-ft. stems, he may of course reduce day length sooner. This, of course, advances the flowering date which must be kept in mind too. See table, page 26.

DETAILS OF LIGHTING, SHADE, TEMPERATURE. Where days must be lengthened, use 60 Watt bulbs with reflectors spaced 4 feet apart down the bench—and kept about 2-3 feet above the plant tops. Turn lights on at 10 PM. Here's a good table by Alex Laurie on number of hours to burn lights each night to keep Mums vegetative (non-flowering).

Month	No. of Hours	Month	No. of Hours
August	2	January	5
September	2 1/2	February	4
October	3	March	3
November	4	April	2
December	5		

Now about temperature: **both Mums and Pomps must be kept at a minimum of 60 degrees until buds are definitely formed.** Failure to maintain 60 degrees will mean blindness on most varieties during many parts of the year. Some varieties will set bud



at 55, but until you have gained experience, better stay with 60 degrees.

Many retail growers don't have a 60 degree house—keep the whole place 50 nights, 60 or higher days. We have seen spring Mums grown in these 50 degree houses by enclosing the bench of plants at night under the black sateen used for shading, and turning on a pipe or two under the bench—thus maintaining 60 only in the area immediately surrounding the plants. It works OK—as long as they are kept at 60.

Another important point about temperature; during the winter months and in the northern states, the house temperature

must be dropped to around 50 degrees (nights) **after buds show color** and until the crop is cut. We found that Pompoms kept at 60 degrees minimum right thru till cutting were worthlessly soft—on crops cut during December, January, February. Incidentally, we tried a bed of Asters along with February flowering Pompoms at 60 degrees nights. The heat ruined them at that time, too.

Cuttings used for off season flowering must be from lighted stock plants. We do have cuttings of suitable varieties available. Orders for large quantities must be booked well in advance. Write or wire what your general plans are—what colors, how many, when to be flowered.

OFF-SEASON SCHEDULE FOR PINCHED CROPS

Note: This table gives benching, pinching, lighting (or shading) and flowering dates for flowering Mums 12 months a year. For dates, etc., on unpinched (single stem) growing, see pages 27 and 28.

To Flower	Bench Cuttings	Pinch	Lights on	Lights off	Start Shade	Varieties
Jan. 1	Aug. 11	Sept. 1	Aug. 11	Oct. 17	None	Pompoms: Little America, Shasta, Goldsmith, Nosegay, Lollypop, Yellow Shasta, Soprano, Linda Lou, Br. Goldsmith, Bittersweet. Standards: Chattanooga, Marketeer, Ind. White, Yel. Mefo, Golden Pearson, Golden Mrs. Ross, Yel. Chattanooga, Ind. Yellow, Ed. Seidewitz, Thanks. Pink, Ind. Pink.
Feb. 1	Sept. 1	Sept. 20	Sept. 1	Nov. 17	None	
Mar. 1	Sept. 22	Oct. 13	Sept. 22	Dec. 15	None	Pompoms: Little America, Shasta, Wh. Mensa, Golden Mensa, Goldsmith, Nosegay, Lollypop, Yel. Shasta, Masterpiece, Soprano, Br. Goldsmith, Bittersweet. Standards: Chattanooga, Marketeer, Ind. White, Yel. Mefo, Ind. Yellow, Golden Pearson, Golden Mrs. Ross, Yel. Chattanooga, Ed. Seidewitz, Thanks. Pink, Ind. Pink.
Apr. 1	Oct. 26	Nov. 17	Oct. 26	Jan. 15	None	Pompoms: Wh. Mensa, Encore, Little America, Shasta, Golden Mensa, Nosegay, Lollypop, Yellow Shasta, Masterpiece, Linda Lou, Beauregard. Standards: Mefo, Monument, Ind. White, Yel. Mefo, Golden Pearson, Ind. Yellow, Ind. Pink.
May 1	Dec. 6	Dec. 27	Dec. 6	Feb. 14	Feb. 14	Pompoms: Wh. Mensa, Encore, Little America, Shasta, Golden Mensa, Golden Herald, Sunray, Lollypop, Yel. Shasta, Masterpiece, Thyra, Beauregard. Standards: Mefo, Monument, Ind. White, Yel. Mefo, Golden Pearson, Ind. Yellow, Ind. Pink.
June 1	Jan. 21	Feb. 12	Jan. 21	Mar. 15	Mar. 15	Pompoms: Wh. Mensa, Encore, Little America, Shasta, Golden Mensa, Golden Herald, Sunray, Lollypop, Yel. Shasta, Thyra, Linda Lou, Beauregard. Standards: Mefo, Monument, Ind. White, Yel. Mefo, Golden Pearson, Ind. Yellow, Ind. Pink.
July 1	Mar. 5	Mar. 26	Mar. 5	Apr. 15	Apr. 15	Pompoms: Encore, Little America, Shasta, Mary L. Hall, Sunray, Lollypop, Yel. Shasta, Linda Lou, Beauregard. Standards: Mefo, Monument, Golden Pearson.
Aug. 1	Apr. 8	Apr. 29	Apr. 8	May 16	May 16	Pompoms: Encore, Little America, Shasta, Snowdrift, Mary L. Hall, Sunray, Lollypop, Yel. Shasta, Linda Lou, Beauregard. Standards: Mefo, Monument, Yel. Mefo, Golden Pearson.
Sept. 1	May 8	May 29	None	None	June 16	Pompoms: Encore, Little America, Snowdrift, Shasta, Constellation, Mary L. Hall, Sunray, Lollypop, Yel. Shasta, Soprano, Linda Lou, Beauregard. Standards: Mefo, Monument, Yel. Mefo, Golden Pearson.
Oct. 1	June 3	June 24	None	None	July 18	Pompoms: Encore, Little America, Shasta, Wh. Mensa, Constellation, Goldsmith, Mary L. Hall, Lollypop, Yel. Shasta, Soprano, Linda Lou, Br. Goldsmith, Bittersweet. Standards: Chattanooga, Marketeer, Ind. White, Yel. Mefo, Golden Pearson, Yel. Chattanooga, Ind. Yellow, Ed. Seidewitz, Thanks. Pink, Ind. Pink.

To Flower	Bench Cuttings	Pinch	Lights on	Lights off	Start Shade	Varieties
Nov. 1	June 27	July 18	Aug. 1	Aug. 16	Aug. 16	Pompons: Little America, Shasta, Wh. Mensa, Snowdrift, Goldsmith, Constellation, Lollypop, Yel. Shasta, Soprano, Linda Lou, Br. Goldsmith, Bittersweet. Standards: Chattanooga, Marketeer, Ind. White, Yel. Mefo, Golden Pearson, Yel. Chattanooga, Ind. Yellow, Ed. Seidewitz, Thanks. Pink, Ind. Pink.
Dec. 1	July 20	Aug. 11	Aug. 1	Sept. 15	Sept. 15	Pompons: Little America, Shasta, Goldsmith, Nosegay, Lollypop, Yel. Shasta, Soprano, Linda Lou, Br. Goldsmith, Bittersweet. Standards: Chattanooga, Marketeer, Ind. White, Yel. Mefo, Golden Pearson, Golden Mrs. Ross, Yel. Chattanooga, Ind. Yellow, Ed. Seidewitz, Thanks. Pink, Ind. Pink.

Note: The following Pompons may be shaded together to flower during August, September, October: Pinocchio, Gold Coast, Ballerina, Seneca, Reward. They should not be shaded along with varieties on above table because they will bloom 10-12 days sooner after shading starts.

The following Standards may be shaded to flower together during August, September and October: Queen's Lace (white Spider), Silver Sheen, Blazing Gold, Good News, Detroit News. They should not be shaded along with the above Pompons nor with varieties from the above table, since they will bloom sooner after shading.

SCHEDULE FOR YEAR AROUND FLOWERING OF UNPINCHED CROPS

From the table on pages 27 and 28, dates for benching, shading, lighting of **unpinched** crops can be figured. This tabulation is not as simple as the one on page 25, but it permits more accurate timing. Data for this table is from Yoder Bros., Barberton, Ohio.

For example, to flower Shasta on January 15, look under the first column on the left (January 15 to March 15 flowering period) and follow down till you come to Shasta. You find three figures, "55, 75, 130." First is number of long days (benching to shading), second is number of short days (shading to flowering), and last is total days benching to flowering. Now, for the schedule.

1. Benchung date. Total days benching to flowering is 130. Figuring back 130 days from January 15, we bench cuttings September 7.

2. Benchung to shading date (long days). For proper development, the plants must be exposed to a long day (14 hours) for exactly 55 days in this case. This is accomplished as follows:

Sept. 7-30 2 hours light per night
Oct. 1-31 3 hours light per night
Nov. 1-2 4 hours light per night

Note: Where long day period falls between May 1 and August 1, no artificial light is used. Days are naturally long enough.

3. Shading to flowering (short days). To set buds properly, this crop requires 75 short days. Since the short day period for this crop occurs in winter when days are naturally short, no black cloth shade is necessary. Where part or all of a short day period falls between February 15 and September 1, the day must be shortened by applying black sateen 5 PM to 7 AM. For example, on a crop where the short day period ends June 15, black cloth shading starts June 15, is kept up till buds are set.

These directions for lighting and shading are based on Middle Western day length. Growers farther south have naturally longer days in winter, hence shorter periods of artificial light are required at night. Just remember that during long day periods, plants should have a 14 hour day, during short day periods, the day should be 10 hours long.

A correction to these tables must be made by southern growers—for higher light intensity and longer days in winter. Although there is no accurate data available, the following table based on experience of growers in Southern Florida will illustrate the point.

To Flower	Encore During January	Total Long Days Needed	Total Short Days Needed	Total Days Benchung to Flowering
Chicago	54	73	127	
Atlanta, Ga.	37	73	110	
Miami, Fla.	20	74	94	

In other words, Miami, Florida growers must use the same schedules in January that are used in Chicago in June.

Lastly, it should be emphasized that these closely timed schedules can apply only where rapid, unchecked growth is maintained. Any check to the growth of the plant delays it—and makes it impossible to stay on schedule. To maintain this rapid growth, you must start with a succulent, well rooted cutting, use good open soil, keep plants well watered, fed, keep 60 degree temperature, and keep plants free of insects and diseases.

ABOUT SINGLE STEM MUM CULTURE

This season, practically all the Mums we grew—both Pomps and Standards—were grown single stem, no pinch. The closer spacing obviously increases cost of cuttings per bed—but we believe that both Mums and Pomps can be grown so much quicker and better this way that it will eventually become common practice. Here's why:

1. We save a good 3 weeks time on the bench. Including cost of watering, spraying, etc., plus general overhead, we figure this saving alone offsets much of the added cost. Furthermore, where the time saved means an extra crop per year on the bed—the economy is even greater. The three crops per year on year-around Mum ranges would not be possible without single stem culture.

2. Heavier production. A noteworthy increase in bunches of Pomps per square foot over the pinched crop.

3. Better uniformity. Where three sprays are grown to a plant, one is usually a weakling. On single stem growing, they're all about alike.

4. Better spray formation. Yoders of Barberton find in general much more desirable spray formation on single stem grown Pomps, and more fully petaled Standards.

About spacing: Current thinking is to use wider spacing during the low light months of the year. Yoders recommend 4 x 9 (or 6 x 6) for crops to flower in winter, gradually changing to 4 x 6 for summer flowered crops. These close spacings use more cuttings but produce lighter individual sprays. This means 4-5 sprays per bunch in place of 2 or 3, which is more to the liking of retailers.

See "Grower Talks", November 1950, for further discussion of this table and other aspects of off-season Mum flowering.

SCHEDULE FOR UNPINCHED CROPS

Flowering Period →	Jan. 15 to Mar. 15	Mar. 15 to Apr. 15	Apr. 15 to May 15	May 15 to June 15	June 15 to Aug. 15	Aug. 15 to Sept. 15	Sept. 15 to Oct. 15	Oct. 15 to Nov. 15	Nov. 15 to Dec. 15	Dec. 15 to Jan. 15
Variety ↓	Long Days Short Days Total									
Apr. Valencia	40 85 125	45 85 130							15 85 100	20 85 105
Ballerina	55 75 130	60 75 135	60 70 130	45 70 115	30 70 100	35 70 105			30 85 115	30 85 115
Beauregard	55 75 130	60 75 135	50 75 125	35 75 110	25 75 100	20 75 95	25 75 100	30 75 105	35 75 110	45 75 120
Belray	40 85 125	45 85 130	35 85 120	35 65 100	25 65 90	20 65 85	25 65 90	30 65 95	20 85 105	30 85 115
Betsy Ross										
Bittersweet	55 75 130	60 75 135						25 75 100	30 75 105	35 75 110
Brandywine	45 85 130	50 85 135							25 85 110	35 85 120
Brocade	50 75 125	55 75 130	45 75 120						25 75 100	30 75 105
Br. Goldsmith	50 80 130	55 80 135							25 80 105	30 80 110
Br. Minstrel	40 95 135	45 95 140							20 95 115	30 95 125
Br. Riviera	40 95 135	45 95 140								30 95 125
Buckskin	40 90 130	45 90 145								30 90 120
Cameo	45 85 130	50 85 135								35 85 120
Challenge	50 80 130	55 80 135								40 80 120
Champagne	50 80 130	55 80 135								20 95 115
Chattanooga	50 80 130	55 80 135							30 80 110	40 80 120
Christmas Greeting	35 95 130								15 95 110	25 95 120
Christmas Star	45 90 135	50 90 140							25 90 115	35 90 125
Cinderella	40 85 125	45 85 130							20 85 105	30 85 115
Copperhead	65 70 135	55 70 125	40 70 110						40 70 110	50 70 120
Corsair	35 95 130	40 95 135							15 95 110	25 95 120
Crescendo										
Dk. Br. Masterpiece		65 70 135	55 70 125	40 70 110					40 70 110	50 70 120
Dk. Enchantress	40 90 130								20 90 110	30 90 120
Dk. Orchid Queen									40 70 110	50 70 120
Dk. Valencia	40 85 125	45 85 130							15 85 100	30 85 115
Debutante	40 90 130								20 90 110	30 90 120
Defiance	35 95 130	40 95 135							15 95 110	25 95 120
Det. News										
Ed. Seidewitz	50 80 130	55 80 135							25 80 105	30 80 110
Enchantress	40 90 130								20 90 110	30 90 120
Encore	65 70 135	55 70 125	40 70 110	30 70 100	25 70 95	30 70 100	35 70 105	40 70 110	50 70 120	
Falcon	45 85 130	50 85 135							25 85 110	35 85 120
Festival	55 80 135	60 80 140							35 80 110	45 80 125
Fortune	40 90 130	45 90 135							20 90 110	30 90 120
Forty-Niner										
Galaxy	45 85 130	50 85 135	55 75 130	40 75 115	30 75 105	25 75 100	30 75 105	35 75 110	20 85 105	35 85 120
Gold Coast									25 85 110	35 85 120
Golden Herald	65 65 130	55 65 120	40 65 105	30 65 95	25 65 90	30 65 95				
Golden Jane	40 85 125	45 85 130	60 60 120	50 60 110	35 60 95	30 60 90	35 60 95	15 85 100	20 85 105	30 85 115
Golden Mensa										
Golden Mrs. Ross									35 75 110	50 75 125
Golden Pearson	50 80 130	55 80 135							25 80 105	30 80 110
Goldsmith	50 80 130	55 80 135							25 80 105	30 80 110
Goldtone	45 85 130	50 85 135							20 85 105	25 85 110
Good News										
Halo										
Harvester										
Holiday	50 85 135	55 85 140							35 75 110	40 85 125
Indian Head	50 80 130	55 80 135							25 80 105	30 80 110

SCHEDULE FOR UNPINCHED CROPS—Continued

Flowering Period →	Jan. 15 to Mar. 15	Mar. 15 to Apr. 15	Apr. 15 to May 15	May 15 to June 15	June 15 to Aug. 15	Aug. 15 to Sept. 15	Sept. 15 to Oct. 15	Oct. 15 to Nov. 15	Nov. 15 to Dec. 15	Dec. 15 to Jan. 15
Variety ↓	Long Days Short Days Total									
Ind. Bronze	65 65 130	70 65 135	60 65 125	45 65 110			35 65 100	40 65 105	45 65 110	55 65 120
Ind. Pink	65 65 130	70 65 135	60 65 125	45 65 110			35 65 100	40 65 105	45 65 110	55 65 120
Ind. White	65 65 130	70 65 135	60 65 125	45 65 110			35 65 100	40 65 105	45 65 110	55 65 120
Ind. Yellow	65 65 130	70 65 135	60 65 125	45 65 110			35 65 100	40 65 105	45 65 110	55 65 120
Ivanhoe					40 60 100	35 60 95	40 60 100	45 60 105		
Jean Elizabeth	60 70 130	65 70 135	55 70 125	40 70 110			30 70 100	35 70 105	40 70 110	50 70 120
Klondike	50 80 130	55 80 135							30 80 110	40 80 120
Linda Lou	60 75 135	65 75 140	55 75 130	40 75 115	30 75 105	25 75 100	30 75 105	35 75 110	40 75 115	50 75 125
Little America	65 75 140	70 75 145	60 75 135	45 75 120	35 75 110	30 75 105	35 75 110	40 75 115	45 75 120	55 75 130
L. I. Beauty	50 80 130	55 80 135							30 80 110	40 80 120
Lollypop	55 75 130	60 75 135	50 75 125	35 75 110	25 75 100	20 75 95	25 75 100	30 75 105	35 75 110	45 75 120
Mahogany										
Vik.	45 85 130	50 85 135							20 85 105	25 85 110
Mary L. Hall									25 75 100	35 85 120
Masterpiece									40 70 110	50 70 120
Medallion	35 95 130	40 95 135							15 95 110	25 95 120
Mefo	55 70 125	60 70 130	50 70 120	35 70 105	25 70 95	20 70 90	25 70 95	30 70 100	35 70 105	45 70 115
Merrymaker	40 95 135	45 95 140							20 95 115	30 95 125
Minstrel	40 95 135	45 95 140							20 95 115	30 95 125
Moonglow	50 75 125	55 75 130	45 75 120						30 75 105	40 75 115
Nosegay	50 80 130	55 80 135							30 80 110	40 80 120
Omega	45 90 135	50 90 140							25 90 115	35 90 125
Orchid Beauty	60 70 130	65 70 135	55 70 125	40 70 110					40 70 110	50 70 120
Paramount	45 85 130	50 85 135							25 85 110	35 85 120
Pink Dot										
Pk. L. I. Bty.	50 80 130	55 80 135							30 80 110	40 80 120
Pinky	45 85 130	50 85 135							25 85 110	35 85 120
Pinocchio										
Popcorn										
Queen's Lace										
Reward									50 60 110	60 60 120
Riviera	40 95 135	45 95 140							20 95 115	30 95 125
Rosalind	35 95 130								25 95 120	
Rubicon										
Rusticon									30 80 110	40 80 120
Sea Gull	50 80 130									
Seneca										
Shamrock	35 95 130	40 95 135	60 65 125	45 65 110					15 95 110	25 95 120
Shasta	55 75 130	60 75 135	50 75 125	35 75 110	25 75 100	20 75 95	25 75 100	30 75 105	35 75 110	45 75 125
Silver Sheen										
Silversmith	40 90 130	45 90 135							20 90 110	30 90 120
Snowcap	45 90 135	50 90 140							25 90 115	35 90 125
Snowcrest	40 90 130	45 90 135							20 90 110	30 90 120
Snowflurry	45 80 125	50 80 130	40 80 120						25 80 105	35 80 115
Soprano	55 75 130	60 75 135	50 75 125						35 75 110	45 75 120
Starbright										
Taffeta										
Thanks. Pink	55 80 135	60 80 140	55 75 130	40 75 115					35 80 115	45 80 125
Valencia	40 85 125	45 85 130							20 85 105	30 85 115
Wh. Mensa									35 75 110	40 75 125
Wh. Valencia	40 85 125	45 85 130							20 85 105	30 85 115
Yel. Cameo	40 90 130	45 90 135							20 90 110	30 90 120
Yel. Chatt.	50 80 130	55 80 135							30 80 110	40 80 120
Yel. Daisy										
Yel. Lace										
Yel. L. I. Bty	50 80 130	55 80 135							30 80 110	40 80 120
Yel. Mefo	55 70 125	60 70 130	50 70 120	35 70 105	25 70 95	20 70 90	25 70 95	30 70 100	35 70 105	45 70 115
Yel. Queen	60 70 130	65 70 135	55 70 125	40 70 110				30 70 100	35 70 105	40 70 110
Yel. Riviera	40 95 135	45 90 135							20 95 115	30 95 125
Yel. Shasta	55 75 130	60 75 135	50 75 125	35 75 110	25 75 100	20 75 95	25 75 100	30 75 105	35 75 110	45 75 120

INSECT CONTROL

A regularly followed preventive program is essential if Mums are to be kept insect-free. If they aren't kept clean in the early stages, spider or aphis will attack opening blooms where they often can't be controlled at all. Under glass in fall, winter and early spring, Parathion bombing (aerosols) monthly will normally keep Mums clean. It may take more frequent bombing to clean up a bad infestation of insects. In late spring and summer the house should be bombed every two weeks. For outdoor Mums and Poms we have had excellent success with the following spray:

Per 10 gallons

- 2½ ozs. 15% parathion wettable powder.
- 90 c. c. Detex (DDT)—especially effective against thrip.
- 18 c. c. A-S-3 (or any good spreader).
- 2 oz. Fermate (for control of leaf diseases).

Where aphis are found on open blooms, Nicofume pressure fumigators are effective and not apt to cause injury. Spider on open blooms of most varieties can be controlled with Parathion bombs, if care is used. Main point is the blooms and foliage must be absolutely dry at time of application. House humidity should be low as possible, too, walks dry. Temperature between 70-80 degrees.

1. MIDGE. We found the following a very effective control: Apply sodium selenate to soil at recommended rate (¼ gram per square foot if concentrated powder is used). We put this on with a Hozon siphon applicator. Wash foliage with water after application to avoid burn. This gave slight injury on one bench where stock plants were not yet well established; not serious.

Besides that, we dusted weekly with DDT dust—for nearly two months. No new galls were seen after 30 days.

2. RED SPIDER. Troublesome, especially in warm weather. Daily "wetting down" of foliage helps. We depend largely on Parathion bombs for control of spider, aphis, and most other Mum insects. Vapotone spray 1 to 800 is excellent—use a good spreader.

3. THRIp. Detex or any good DDT spray is very effective.

4. APHIS. Parathion bomb (or spray) very good. Vapotone spray 1 to 800 with spreader is also excellent.

5. LEAF MINER. Nicotine liquid used 1 to 200 with soap spreader is the best control.

6. MEALY BUG. Dimite spray used 1 to 800 with a good spreader is very effective. Vapotone 1 to 800 with a spreader is good.

7. LEAF ROLLER (tier), and cut worms. Detex or any good DDT spray.

8. FOLIAR NEMATODE. Select cuttings from clean plants and bench only in sterilized soil. Also, if infestation occurs, keep foliage dry at all times. Splashing water spreads the worms. Some infestation may be cleaned up with sodium selenate. Apply at strength recommended on container 2 weeks after planting. Then repeat in another 2 weeks. May injure some varieties.

9. GRASSHOPPERS. Chlorodine powders are best.

PRINCIPAL DISEASES

1. VERTICILLIUM (Seidewitz Disease) is a serious Mum problem. Starting at edges, leaves turn yellow, dry up—usually from the bottom of the plant first. Some varieties take it worse than others. Only known control is to plant cuttings which have been cultured against it—and be sure to use sterilized soil. Steam preferred.

2. STUNT. Principal symptoms are dwarfing of plant and blooms to about ½ to 2/3 normal size, earlier bud and bloom formation, and on red varieties a noticeably paler color. Otherwise plants are normal. Stunt does not cause any shriveling of leaves or rotting of the plant.

Control: First start with cuttings nearly free as possible of the disease. Thorough steaming of soil to 180° for 30 minutes is vital to prevent re-infection from the soil. Rigid insect control is equally important in view of possible spread of the disease from healthy to clean plants. Like most diseases it attacks certain varieties worse than others. Once a plant is infected, there is no cure.

3. SEPTORIA. Small dark brown spots, increasing in size, finally causing leaves to drop. Attacks lower leaves first. Most serious on outdoor plantings. Delay propagating till long shoots are available; take only a short cutting out of the tip. Dip cuttings in Fermate, 1 lb. per 100 gallons of water. Keep foliage dry in sand and clear thru growing period. After planting, spray plants with Fermate 1 lb. per 100 gallons every ten days till plants are 18 inches high. Spraying is especially important on outdoor plantings in rainy seasons.

4. MILDEW. Sulfur dust is effective if no colored flowers are present. Malachite green spray may be used. Greenol (California Spray and Chemical Co.) with Santomerse S, 1 to 2000, has been recommended recently as being very effective.

We have often noticed mildew on Mums growing in tight, poorly drained soil. We don't know exactly what the connection is, but usually cultivating the wet packed soil to help it dry and aerate will get plant into growth—and clear up the mildew, too.

5. RUST. Same spray program as was recommended for Septoria leaf spot.

GOOD DOPE ON POT MUM GROWING

Culture of potted Chrysanthemums is so entirely unlike growing them as a cut flower that—well, each season a few fellows get into trouble trying to handle them like cut flowers. They make a mighty fine fall pot plant when properly handled, and many are grown that way. If you're interested in trying them, here's a growing schedule worked out by a specialist, Hans Zoerb of LaCrosse (Wisconsin) Floral Co. It's based on quite a few years' experience, and has consistently brought them in on time.

TO FLOWER AT NORMAL DATES

1. Order cuttings to arrive July 8, pot three to a 6-inch pot.
2. Top all varieties (a soft pinch) 2 days after potting (no later).
3. Top all varieties again soon as breaks are long enough to take a pinch. Depends on variety. Normally first week of August.
4. Last pinch: follow these dates carefully.

Blazing Gold, Aug. 21	Smith's Late White, Sept. 13
Bonaffon Deluxe, Sept. 3	Tobin's Yellow, Sept. 13
Granite State, Aug. 21	Sungold, Sept. 6
Queen of Pinks, Aug. 28	
5. Feeding: Vigoro soon as plants get under way; ammonium sulphate later.

FIRST SHADING—TO FLOWER EARLY SEPTEMBER

1. Order cuttings to arrive May 10. Varieties: Granite State, Blazing Gold, Gypsy.
2. First pinch, May 23.
3. Second pinch, June 13.
4. On July 3 make final pinch, and start black cloth shading.

SECOND SHADING TO FLOWER IN MID-SEPTEMBER

1. Order cuttings to arrive May 20. Varieties: Blazing Gold, Yellow Beauty, Bonaffon Deluxe, Gypsy, Granite State.
2. First pinch, June 11.
3. Second pinch, June 29.
4. On July 17 make final pinch, and start black cloth shading.

THIRD SHADING TO FLOWER MID- TO LATE OCTOBER

1. Order cuttings to arrive June 10. Varieties: Yellow Beauty, Bonaffon Deluxe, Little America, Gypsy, Queen of Pinks.
2. First pinch, June 21.
3. Second pinch, July 1.
4. On August 10 make final pinch, and start shading.

HARDY MUMS FOR RETAIL GROWERS

The plan generally used is to order cuttings for delivery in late April. When received, they are either potted to 2½ or 3 inch pots, or better yet to a 2 x 2 or 2½ x 3 inch veneer plant band. Banded plants can be sold band and all. These started plants can be sold for garden planting soon as danger of frost is over; and from this early start should make fine specimens by fall.

Any plants that might be left over by early June can be lined out in the field where you can give them water when it gets real dry. They can be dug and moved to your customers gardens just before they flower. The dwarfer kinds are often dug, potted and sold as attractive pot plants during October.

B E T T E R M U M S



F O R F L O R I S T S



Ball Better Lily Bulbs

PACIFIC NORTHWEST GROWN

F.O.B. Chicago

BALL CROFTS for Cutting

Per 100 Per Case

Size 7-8 in. 250 bulbs per case	\$24.00	\$57.50
Size 8-9 in. 200 bulbs per case	43.00	82.00
Size 9-10 in. 150 bulbs per case	52.00	73.00

REGALES

Per Case

Size 8-9 in. 200 bulbs per case	\$25.00
Size 9-10 in. 150 bulbs per case	25.00

JAPANESE GROWN LILIES

F.O.B. West Chicago

AURATUM (Gold Band)

White, spotted crimson; gold stripes.

Per Case

Size 8-9 in. 200 bulbs per case	\$45.00
Size 9-10 in. 150 bulbs per case	42.00

ERABU

Per Case

Size 7-9 in. 300 bulbs per case	\$42.50
Size 8-10 in. 225 bulbs per case	42.50
Size 9-10 in. 150 bulbs per case	42.50

PLATYPHYLLUM (Auratum)

Less spotted than Gold Band.

Per Case

Size 8-9 in. 200 bulbs per case	\$58.00
Size 9-10 in. 150 bulbs per case	52.00

RUBRUM (Speciosum)

Carmine-pink

Per Case

Size 7-9 in. 250 bulbs per case	\$50.00
Size 8-9 in. 200 bulbs per case	45.00
Size 9-10 in. 150 bulbs per case	42.00
Size 10-11 in. 100 bulbs per case	32.00

ALBUM (Speciosum) (White Rubrum)

Per Case

Size 7-9 in. 250 bulbs per case	\$85.00
Size 8-9 in. 200 bulbs per case	80.00
Size 9-10 in. 150 bulbs per case	80.00

See the enclosed order blank for special Lily Collection, or write us for information.

WRITE US FOR PRICES ON LARGER QUANTITIES

Prices subject to change without notice.

Carnation Cuttings for '50-51 Season

The necessity of clean, healthy Carnation cuttings is fully as important to the grower as Mum cuttings that he can depend upon. Because we are cut flower growers ourselves, as well as dealers in Carnation cuttings, we realize how vital good stock is to our customers.

With this thought foremost in our minds we have spared no effort to obtain the very best possible sources of supply for our Carnation cuttings. However, we cannot stress too strongly the importance of ordering early if you want real quality. All orders are filled in the rotation in which they are received.

Minimum order 100 of a variety. 250 cuttings of a variety at the 1000 rate. Prices subject to change. Cuttings available from December through March. For varieties marked "patented" or "restricted", agreements must be signed before shipment can be made.

LIGHT PINK

	Rooted Cuttings	Price per
	100	1000

Crowley's Sim. (Res.). Blush-pink sport of Wm. Sim. (Minimum order 1000.) Available 1952-1953		\$150.00
Light Pink Abundance. (Pat.). Large, full flowerers	\$10.00	80.00
Netta. Popular light pink	15.00	125.00
Princess Elizabeth. Large flowered	20.00	150.00
Princess Irene. Large flowered	15.00	125.00
Sally. Blush-pink	10.00	80.00
Spirit of St. Louis. (Res.). Early, long stemmed	15.00	125.00
Virginia Hercules. Large sport of Virginia	15.00	125.00

MEDIUM PINK

Citation. (Res.). Rose-pink	20.00	150.00
Mrs. Eleanor Roosevelt. (Res.). Sport of Northland	20.00	150.00
Pink Lady. (Res.). Sport of Kentucky	20.00	150.00
Pink Mercury. Rose-pink sport of Mercury	20.00	150.00
Regal Pink. (Res.). Large flowered, soft rose-pink	20.00	150.00
Rosalie. (Pat.). Flowers medium to large	20.00	150.00
Virginia Rose. Uniform production, good keeper	10.00	80.00

DARK PINK

Canup's Pride. (Res.). Good stem, free flowering	20.00	150.00
Sidney Littlefield. (Res.). Extra large	20.00	150.00
Sim Glow. (Res.). Dark pink sport of Wm. Sim	20.00	150.00
Waltham Pink. (Res.). Deep pink, large flowered	20.00	150.00
Virginia Miller. Dark pink Virginia	12.00	100.00

SALMON-PINK

Charm. (Pat.). Stems long and sturdy	20.00	150.00
Donna Lee. Flowers large and full	10.00	80.00
Lexington. (Res.). Large, salmon-pink seedling	20.00	150.00
Pollyanna. (Pat.). Steady winter producer	15.00	125.00

ORCHID

Mrs. Bradford. (Res.). Clear orchid	20.00	150.00
Nancy. Dark orchid; lighter edge	20.00	150.00
Orchid Beauty. Pelargonium color	12.00	100.00

WHITE

	Rooted Cuttings	Price per
	100	1000

Mercury. Pure white sport of Giant Fisher	\$15.00	\$125.00
Northland. Large, fragrant white	12.00	100.00
Olivette. A good producer	10.00	80.00
Patrician. A good large white	10.00	80.00
White Briry. (Res.). Sport of John Briry	12.00	100.00
White Sim. (Res.). Pure white sport of Wm. Sim	20.00	150.00
White Sidney Littlefield. (Res.). Pure white sport of Sidney Littlefield	20.00	150.00

CRIMSON and RED

C. W. Weld. Clean, healthy, Crimson	12.00	100.00
Jumbo Cardinal. (Res.). Improved Cardinal	15.00	125.00
No. 14 Crimson. (Res.)	15.00	125.00
Olympic. Crimson seedling	12.00	100.00
Red Seth Parker. Sport of Seth Parker	12.00	100.00
Tom Knipe. (Pat.) Large, darker than Cardinal	20.00	150.00
Victory Red. Improved King Cardinal; deeper red	12.00	100.00
Wm. Sim. (Res.) Vivid red seedling	20.00	150.00

YELLOW

Miller's Yellow. Best yellow	12.00	100.00
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VARIEGATED

Autumn Glow. (Res.). Huge orange variegated	20.00	150.00
Barbara Brigham. Apricot with pink pencilings	10.00	80.00
Chief Kokomo. (Pat.). Pink on yellow	10.00	90.00
Dairy Maid. White, pink pencilings	12.00	100.00
Harlequin. (Res.). Flecked, flesh-pink	20.00	150.00
Golden Wonder. Yellow variegated	10.00	80.00
Lavender-Rose. (Res.). Lavender-rose seedling	20.00	150.00
Mrs. E. F. Guba. (Res.). Pale almond, vivid pink edges and lines	20.00	150.00
Pelargonium. Mottled crimson	15.00	125.00
Reina. (Res.). White, flecked pink	15.00	125.00
Sara Jane Knipe. (Pat.). Brilliant rosy magenta, silver edged	20.00	150.00
Scarlet King. Sport of Pelargonium	15.00	125.00
Sondra. (Res.). Similar to Scarlet King	20.00	150.00
Sphynx. (Res.). Crimson stripes on rose	20.00	150.00
Starlight. (Res.). Variegated white	15.00	125.00
Sylvia. (Res.). Variegated white	15.00	125.00
Unique. (Res.). Rich purple with orchid edge	20.00	150.00
Symphony. (Pat.). Mauve, purple stripes	20.00	150.00
Valentine. (Res.). Bright scarlet, white edge	20.00	150.00

B E T T E R M U M S



F O R F L O R I S T S

Small Plants

2 1/4-IN. BANDED PLANTS

Excellent quality, grown and shipped in plant bands to assure satisfactory delivery. Orders placed 90 days or more before delivery will be grown especially for you.

We ship only on Mondays, Tuesdays and Wednesdays to assure delivery to you the same week; therefore, it may be necessary to delay your shipment should your order not be received so that they can be shipped the same week.

Unless you state otherwise, if varieties are sold out at the time your order is received, we reserve the right to substitute varieties equally as good or better.

BEGONIAS

Available September to June

Adeline. Free flowering bright pink; dwarf and compact.
Ball Deep Rose. Deep rosy red during winter and spring, changing to luminous pink during warm weather. Dwarf.
Scandinavia Pink. Intermediate, free flowering, rose-pink.
Scandinavia Red. Intermediate. Bright red flowers.
Luminosa Compacta. Dwarf. Very attractive and popular scarlet-red.
Ball Red. Dwarf. Medium large flowers of bright scarlet.
Indian Maid. Intermediate. Bronze leaved scarlet.
Carmen. Intermediate. Bright rose-pink flowers, bronze leaves.
Snowbank. Dwarf. Large, glistening white flowers.
Assorted.

\$9.00 per 100, \$80.00 per 1000. 250 at 1000 rate.
Minimum order 100; 25 of a variety.

ASTERS

Lighted Plants for June Flowering

Delivery: March 1-May 15

Ball Shell-Pink. (New.) Long stemmed, fully double flowers of soft shell-pink. Quite wilt-resistant.
Ball White. (New.) Large flowered, fully double, pure white.
Ball Deep Rose. Long stemmed, bright deep rose. Very popular.
Ball Deep Purple. Rich bright purple; excellent stem.
Royal Azure-Blue. A fine commercial cut flower variety.
Assorted.

\$8.00 per 100; \$75.00 per 1000. 250 at 1000 rate.
Minimum order 100 plants, 25 of a variety.



Begonia plants being grown at West Chicago for shipment to greenhouses all over the country.

PETUNIAS

Delivery February to May.

Ball All-Double Mixed. A complete mixture of all colors in the All-Double class.
\$12.00 per 100; \$100.00 per 1000. 250 at 1000 rate.
Minimum order 100 plants.

SNAPDRAGONS

Available August to March

White Wonder Imp. Pure white for late winter and spring.
Margaret. Clean-growing, productive ivory-white.
Christina. Hybrid. Medium light pink.
Dorcas Jane. Hybrid. Good stems and long spikes of silvery rose.
Peggy Schumann. Creamy rose-pink. At its best for spring.
Christmas Cheer. Hybrid. Extra early bright rose-pink.
Ball Yellow Hybrid No. 1. Very productive, rich golden yellow.
Ethel. Standard midseason yellow.
Lady Dorothy. Bright orange-bronze.
Ball Red Hybrid No. 7. Most satisfactory red for Christmas or later.
Better Times. Hybrid. Bright cerise-rose.
Ball Lavender. Most popular variety in this color class.
Assorted.

\$7.00 per 100; \$60.00 per 1000. 250 at 1000 rate.
Minimum order 100; 25 of a variety.

Roses

FOR POT FORCING

Delivery Dec.-Jan. F.O.B. West Chicago

EARLY FORCING VARIETIES

Triomphe d'Orleans. Red.
Garnette. Garnet-red.
Margo Koster. Light orange.
Magna Charta. Bright pink.
Gloria Mundi. (Late.) Orange.

Prices All Varieties

Grade	Per 10	Case of 120	Case of 220
XXX	\$6.50	\$68.50	\$125.00
XX	5.50	\$68.50	
X	3.50	\$68.50	
		Less than case lots in multiples of 10 only.	

PINK ROSETTE

XXX Grade

This patented variety is being handled under license from patent owner.

Prices: 1 to 9 plants, \$1.00 each; 10 to 19 plants, 90c each; 19 to 249 plants, 75c each.

Suggested minimum retail price, \$1.50 each.



BUSINESS REPLY ENVELOPE

FIRST CLASS PERMIT NO. 1.

SEC. 34.9, P. L. & R.

WEST CHICAGO, ILL.

WEST CHICAGO, ILL.

GrogBall
I. B. C.





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Necessary
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United States

BUSINESS REPLY CARD

First Class Permit No. 1, Sec. 34.9, P.L.&R., West Chicago, Ill.

GrogBall
I N C.

WEST CHICAGO, ILL.

BALL QUALITY LILY BULBS

White Trumpet Lilies for cut flowers or pots.
Recommended temperatures in parentheses.

Immediate Delivery

GEORGIANNA (60°)

(True Georgia)

Quantity		Per Case
5-6	350	per case \$ 90.00
6-7	300	per case 90.00
7-8	250	per case 105.00

CREOLE (50-55°)

7-8	300	per case 48.00
8-9	250	per case 57.50
9-10	200	per case 65.00
10-up	100	per case 40.00

ERABU (50°)

6-8	400	per case 42.50
7-9	300	per case 42.50
8-10	225	per case 42.50
9-10	150	per case 42.50

Salesman _____ When Ship _____

Ship to _____

ORDER FOR



West Chicago, Ill.

PLEASE PRINT NAME AND ADDRESS

WHEN

19

**WHEN
WANTED**

TERMS

Ree's

Out

Ck.
M. O.

Chg.

**FIRM
NAME**

Please use same firm or greenhouse name on all orders to avoid confusion on our records.

STREET OR R. F. D.

CITY AND STATE

LIMITATION OF WARRANTY. We, Geo. J. Ball, Inc., warrant, to the extent of the purchase price, that Seeds, Plants or Bulbs sold are as described on the container, within recognized tolerances. We give no other or further warranty, express or implied.

CASH or C.O.D.
DISCOUNT

Prices quoted on Cyclamen seed, Lawn Grass and Plant Bands are net, no cash discount. Plant and Bulb prices are net unless quoted differently in special catalogs or lists. Otherwise, when cash is enclosed, or on C.O.D.s, a discount of 5% is allowed on all seed orders from \$5.00 to \$25.00. On \$25.00 and over 8% is allowed. Plants, Bulbs and Plant Bands **cannot** be sent C.O.D.

In ordering Plant Band Material, be sure to state how shipment should be made, Freight, Express or Truck, otherwise we'll use our best judgment.

SEE OVER FOR ADDITIONAL SPACE.

IF YOU NEED MORE ORDER BLANKS - CHECK HERE

See note on other side about Cash Discount and C.O.D.

Total—

BALL RED BOOK

Over 50 years of growing experience with miscellaneous crops is gathered into this handy pocket size booklet. More than 150 florists' crop are treated in considerable detail in the present edition. We gladly send it to our customers for the cost of printing and mailing which is 50c.

Why not order your copy with your seed order?

GROWER TALKS

(Montbly)

By Vic Ball and others

Our monthly medium for suggesting timely sowing of seasonal crops, along with practical suggestions for growing them on. Also includes notes of general Floricultural value as noted by the editor and his staff. Monthly, 60c per year.—2 yrs. \$1.00.

You can include subscription with your seed order.

PLEASE: We invite constructive criticism. If you have received stock from us that does not suit you just pencil it down here. Or if certain varieties do particularly well in your section it is equally interesting of course. Let's have a few words from you.

Four Popular Collections

We have prepared collections on the items below to give you a well balanced assortment of popular varieties. These collections are packed and shipped F.O.B. our warehouse, West Chicago, Ill.

SUMMER POT PLANT COLLECTION

Delivery December to April

All bulbs in this collection should be started in a minimum night temperature of 70° to be finished in 5 or 6 inch pots.

This collection is ideal for bedding in partial shade. Be sure to have bulbs available for counter sales.

Each unit contains.

125 **Tuberous Rooted Begonias.** 1½-2 inch. Assorted.
50 **Gloxinias.** 1½-2 inch. Assorted.
75 **Caladiums.** 1½-2½ inch. Assorted.

1 Case 250 Bulbs (Collection) \$30.00

GLADIOLI

For Bulb Sales or Cut Flowers

Contains 250 No. 2 size bulbs each of the 8 popular varieties listed below. Colored pictures to help you sell bulbs come with each collection. Order now and be ready for those early spring sales. Delivery December to March.

250 **Chamouny.** Cerise rose, silver edge.
250 **Dr. Bennett.** Large fiery scarlet.
250 **Ethel Cave-Cole.** Light pink.
250 **Margaret Beaton.** White, cherry throat.
250 **Minuet.** Large, clear lavender.
250 **Picardy.** Salmon-pink.
250 **Snow Princess.** Beautiful white.
250 **Yellow Emperor.** Rich yellow.

1 Case 2000 Bulbs (Collection) \$42.50

ROSES

XXX Collection
For Pot Forcing

Delivery December-January

60 **Triomphe d'Orleans.** Red.
20 **Garnette.** Garnet red.
20 **Margo Koster.** Light orange.
20 **Magna Charta.** Bright pink.

120 Plants (Collection) \$68.50

BALL HARDY LILY COLLECTION

An ideal unit for growers who want only a small number of Lilies in several varieties.

Every unit contains cultural information for both greenhouse and outdoor growing of each variety. Pictures of each variety are also included to help you sell bulbs.

Each unit contains the following:

35 bulbs **Croft.** Trumpet. Pure white.
35 bulbs **Regale.** Trumpet. White with pale pink.
35 bulbs. **Rubrum.** Reflex. Carmine pink.
35 bulbs **Auratum.** Bowl. White, spotted crimson; yellow stripes.
35 bulbs **Album.** Reflex. White Rubrum.

1 Case 175 Bulbs (Collection) \$48.00

USE THIS LIST AS YOUR ORDER BLANK

Fill in the quantity and amount below, add your name and address, and mail us your order. We will do the rest.

Quantity	Amount	Quantity	Amount
POT PLANT Collection (s) @ 30.00		ROSE Collection (s) @ 68.50	
GLADIOLI Collection (s) @ 42.50		HARDY LILY Collection (s) @ 48.00	

When to ship _____

Firm Name _____ Salesman _____

Street or R.F.D. _____

City and State _____

Gro. J. Ball
I N C.
WEST CHICAGO
ILLINOIS



ORDER BLANK

Rooted Mum Cuttings-1951

GARDEN (Hardy) VARIETIES

Date

Terms

Rec'd

Ck.

M.O.

Chg.

Remittance Enclosed

FIRM
NAME

STREET OR R.F.D.

CITY AND STATE

Ship By

Railroad Express Air Freight Air Express

Check one of above.

Shipping Date

Substitutions will be

acceptable (check one) Yes No

Shipping address if different from regular mail address

IMPORTANT!—To insure your order being shipped on the date you specify, we suggest that you order at least 6 months in advance of delivery date. ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE. Minimum order 500, 50 of a variety or multiples of 50. Please mark SPECIFIC shipping date.

LIMITATION OF WARRANTY. We, Geo. J. Ball, Inc., warrant, to the extent of the purchase price, that Seeds, Plants or Bulbs sold are as described on the container, within recognized tolerances. We give no other or further warranty, express or implied.

Quantity	Variety	50 per 50	100- 250 per 100	300- 450 per 100	500- up per 100	Amount	Quantity	Variety	50 per 50	100- 250 per 100	300- 450 per 100	500- up per 100	Amount
.....	Achievement	\$3.25	\$6.00	\$5.75	\$5.50	.....	.....	Dark Pink Jewell	3.00	5.70	5.40	5.10	.....
.....	Adirondack	3.00	5.50	5.25	5.00	.....	.....	Dawn Rose	5.00	9.50	9.25	9.00	.....
.....	Air-Way Debut	3.25	6.00	5.75	5.50	.....	.....	Dee Dee Ahrens	3.00	5.50	5.25	5.00	.....
.....	Allegro	3.00	5.70	5.40	5.10	.....	.....	Defiance	4.00	7.50	7.25	7.00	.....
.....	Amber Glow	3.25	6.00	5.75	5.50	.....	.....	Drifted Snow	3.00	5.50	5.25	5.00	.....
.....	Ambrosia	4.00	7.50	7.25	7.00	.....	.....	Dr. Longley	5.00	9.50	9.25	9.00	.....
.....	Argonne	4.00	7.60	7.20	6.80	.....	.....	Early Bronze	3.00	5.70	5.40	5.10	.....
.....	Autumn Song	3.50	6.50	6.25	6.00	.....	.....	Early Gold	4.50	8.50	8.25	8.00	.....
.....	Avalanche	3.00	5.70	5.40	5.10	.....	.....	Early Harvest	3.50	6.50	6.25	6.00	.....
.....	Aviator	3.00	5.70	5.40	5.10	.....	.....	Early Wonder	3.00	5.70	5.40	5.10	.....
.....	Bambi	3.25	6.00	5.75	5.50	.....	.....	Early Yellow	2.75	5.00	4.75	4.50	.....
.....	Barbara Small	3.25	6.00	5.75	5.50	.....	.....	Elkton	3.25	6.00	5.75	5.50	.....
.....	Beacon	5.00	9.50	9.25	9.00	.....	.....	Ember	2.75	5.00	4.75	4.50	.....
.....	Betty	3.25	6.00	5.75	5.50	.....	.....	Ermine	5.00	9.50	9.00	8.50	.....
.....	Bokhara	4.00	7.60	7.20	6.80	.....	.....	Fiesta	4.00	7.50	7.25	7.00	.....
.....	Bonfire	2.75	5.00	4.75	4.50	.....	.....	Fragrant	3.25	6.00	5.75	5.50	.....
.....	Bronze Pyramid	3.25	6.00	5.75	5.50	.....	.....	Goblin	2.75	5.00	4.75	4.50	.....
.....	Burgundy	2.75	5.00	4.75	4.50	.....	.....	Golden Carpet	6.50	12.00	11.75	11.50	.....
.....	Butterball	3.25	6.00	5.75	5.50	.....	.....	Golden Hours	3.50	6.50	6.25	6.00	.....
.....	Calcite	3.00	5.50	5.25	5.00	.....	.....	Golden Spoon	2.75	5.00	4.75	4.50	.....
.....	Candlelight	3.00	5.50	5.25	5.00	.....	.....	Goldleaf	5.00	9.50	9.00	8.50	.....
.....	Capt. John Smith	2.75	5.00	4.75	4.50	.....	.....	Harbinger	3.25	6.00	5.75	5.50	.....
.....	Cardinal Spoon	4.00	7.50	7.25	7.00	.....	.....	Heather Bloom	3.00	5.50	5.25	5.00	.....
.....	Carmelita	5.00	9.50	9.00	8.50	.....	.....	Honeycomb	3.00	5.70	5.40	5.10	.....
.....	Carmine Queen	5.00	9.50	9.00	8.50	.....	.....	Huntsman	5.00	9.50	9.25	9.00	.....
.....	Carnival	5.00	9.50	9.25	9.00	.....	.....	Inspiration	3.50	6.50	6.25	6.00	.....
.....	Catherine Collins	3.25	6.00	5.75	5.50	.....	.....	James Eadie	3.50	6.50	6.25	6.00	.....
.....	Champion Cushion	2.75	5.00	4.75	4.50	.....	.....	Jewell	3.00	5.70	5.40	5.10	.....
.....	Charles Nye	3.00	5.70	5.40	5.10	.....	.....	Judith Anderson	2.75	5.00	4.75	4.50	.....
.....	Chippewa	3.50	6.50	6.25	6.00	.....	.....	Karl A. Reiche	3.25	6.00	5.75	5.50	.....
.....	Chiquita	3.25	6.00	5.75	5.50	.....	.....	Kathleen Lehman	6.50	12.00	11.75	11.50	.....
.....	Chris Columbus	3.00	5.70	5.40	5.10	.....	.....	King Midas	2.75	5.00	4.75	4.50	.....
.....	Commander Cushion	2.75	5.00	4.75	4.50	.....	.....	Lavender Lady	3.50	6.50	6.25	6.00	.....
.....	Coral Sea	2.75	5.00	4.75	4.50	.....	.....	Lavender Lassie	6.00	11.50	11.25	11.00	.....
.....	Courageous	3.50	6.50	6.25	6.00	.....	.....	Maestro	5.00	9.50	9.00	8.50	.....
.....	Cydonia	2.75	5.00	4.75	4.50	.....	.....	Magnificent	4.50	8.50	8.25	8.00	.....

Quantity	Variety	50 per 50	100-250 per 100	300-450 per 100	500-up per 100	Amount	Quantity	Variety	50 per 50	100-250 per 100	300-450 per 100	500-up per 100	Amount
.....	Mahogany Cushion	5.00	9.50	9.25	9.00	.....	.....	Scarlet Crimson	3.25	6.00	5.75	5.50	.....
.....	Major Cushion	2.75	5.00	4.75	4.50	.....	.....	September Bronze	2.75	5.00	4.75	4.50	.....
.....	Mandalay	3.50	6.50	6.25	6.00	.....	.....	September Cheer	2.75	5.00	4.75	4.50	.....
.....	Meditation	3.50	6.50	6.25	6.00	.....	.....	September Dawn	3.25	6.00	5.75	5.50	.....
.....	Mellow Glow	3.50	6.50	6.25	6.00	.....	.....	September Gem	2.75	5.00	4.75	4.50	.....
.....	M. J. Costello	3.25	6.00	5.75	5.50	.....	.....	September Sunshine	3.50	6.50	6.25	6.00	.....
.....	Model O'Perfection	2.75	5.00	4.75	4.50	.....	.....	Sequoia	2.75	5.00	4.75	4.50	.....
.....	Mona	5.00	9.50	9.00	8.50	.....	.....	Serene	3.25	6.00	5.75	5.50	.....
.....	Morning Glow	3.25	6.00	5.75	5.50	.....	.....	Serenity	3.00	5.70	5.40	5.10	.....
.....	Morning Star	3.25	6.00	5.75	5.50	.....	.....	Snowfall	3.50	6.50	6.25	6.00	.....
.....	Mrs. DuPont	3.00	5.50	5.25	5.00	.....	.....	Spellbound	3.00	5.70	5.40	5.10	.....
.....	Mrs. Fischer	2.75	5.00	4.75	4.50	.....	.....	Sunapee	3.25	6.00	5.75	5.50	.....
.....	Mrs. S. P. Rotan	3.25	6.00	5.75	5.50	.....	.....	Symphony	2.75	5.00	4.75	4.50	.....
.....	Nye's Favorite	4.00	7.50	7.25	7.00	.....	.....	Tangerine	3.50	6.50	6.25	6.00	.....
.....	Old Gold	3.25	6.00	5.75	5.50	.....	.....	Tapestry	6.00	11.50	11.25	11.00	.....
.....	Olive Longland	2.50	4.50	4.25	4.00	.....	.....	The Chief	2.75	5.00	4.75	4.50	.....
.....	Orchid Helen	6.00	11.50	11.25	11.00	.....	.....	Tiffany Rose	2.75	5.00	4.75	4.50	.....
.....	Orchid Spoon	2.75	5.00	4.75	4.50	.....	.....	Violet	3.50	6.50	6.25	6.00	.....
.....	Oriental	2.75	5.00	4.75	4.50	.....	.....	Welcome	2.75	5.00	4.75	4.50	.....
.....	Paper White	5.00	9.50	9.00	8.50	.....	.....	White Bounty	3.75	7.00	6.75	6.50	.....
.....	Patricia Lehman	6.50	12.00	11.75	11.50	.....	.....	White Cloud	2.75	5.00	4.75	4.50	.....
.....	Pepita	3.50	6.50	6.25	6.00	.....	.....	White Cushion	2.75	5.00	4.75	4.50	.....
.....	Pink Beauty	2.75	5.00	4.75	4.50	.....	.....	White Spoon	2.75	5.00	4.75	4.50	.....
.....	Polar Ice	3.50	6.50	6.25	6.00	.....	.....	White Tower	4.50	8.50	8.25	8.00	.....
.....	Polaris	5.00	9.50	9.00	8.50	.....	.....	White Wonder	3.00	5.70	5.40	5.10	.....
.....	Pomponette	3.00	5.50	5.25	5.00	.....	.....	Winterset	3.25	6.00	5.75	5.50	.....
.....	Purple Star	2.75	5.00	4.75	4.50	.....	.....	W. P. Snyder	4.00	7.50	7.25	7.00	.....
.....	Red Gold	3.25	6.00	5.75	5.50	.....	.....	Wychwood	3.50	6.50	6.25	6.00	.....
.....	Red Riding Hood	3.25	6.00	5.75	5.50	.....	.....	Yellow Avalanche	3.50	6.50	6.25	6.00	.....
.....	Red Velvet	3.00	5.70	5.40	5.10	.....	.....	Yellow Chris. Columbus	7.50	14.50	14.25	14.00	.....
.....	Remembrance	6.50	12.00	11.75	11.50	.....	.....	Yellow Blanket	3.75	7.00	6.75	6.50	.....
.....	Rose Spoon	2.75	5.00	4.75	4.50	.....	.....	Yellow Cushion	2.75	5.00	4.75	4.50	.....
.....	Rosita	3.50	6.50	6.25	6.00	.....	.....	Yellow Spoon	2.75	5.00	4.75	4.50	.....
.....	Ruby Pompon	2.75	5.00	4.75	4.50	.....	.....	Yellow Supreme	3.25	6.00	5.75	5.50	.....
.....	Salmon Precose	4.00	7.50	7.25	7.00	.....	.....	Youdath's White	2.75	5.00	4.75	4.50	.....
.....	Sam Williston	2.75	5.00	4.75	4.50	.....	.....	Zantha	3.25	6.00	5.75	5.50	.....

SPECIAL OFFER No. 1

500 rooted cuttings, our selection;
50 each of 10 taller varieties for
cutting. \$25.00.

SPECIAL OFFER No. 2

500 rooted cuttings, our selection;
50 each of 10 medium to short
varieties for pots or bedding. \$25.00.

SPECIAL OFFER No. 3

500 rooted cuttings, our selection;
50 each of 5 varieties for cutting,
50 each of 5 varieties for bedding.
\$25.00.

PATENTED VARIETIES

Quantity	.....	.....	.....	.....	.....	.....	Quantity	.....	.....	.....	.....	.....	.....
Mme. Chiang Kai Shek.	\$25.00	per 100					Fred F. Rockwell.	\$25.00	per 100				

Special Instructions:



ORDER BLANK

Rooted Mum Cuttings-1951

GREENHOUSE VARIETIES

Date

Terms

Rec'd

Ck.

M.O.

Chg.

Remittance Enclosed

FIRM
NAME

STREET OR R. F. D.

CITY AND STATE

Ship By

Railroad Express Air Freight Air Express

Check one of above.

Shipping Date

Substitutions will be

acceptable (check one) Yes No

Shipping address if different from regular mail address

IMPORTANT!—To insure your order being shipped on the date you specify, we suggest that you order at least 6 months in advance of delivery date. ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE. Minimum order 500, 50 of a variety or multiples of 50. Please mark SPECIFIC shipping date.

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GREENHOUSE VARIETIES

Quan.	Variety	50 per 50	100- 250 per 100	300- 450 per 100	500- 950 per 100	1000- 2450 per 100	2500- up per 100	Amount	Quan.	Variety	50 per 50	100- 250 per 100	300- 450 per 100	500- 950 per 100	1000- 2450 per 100	2500- up per 100	Amount
	Adagio	\$5.00	\$9.50	\$9.00	\$8.50	\$8.00	\$7.50			Br. Frick	2.75	5.20	4.95	4.65	4.40	4.15	
	Adelaide	2.75	5.00	4.75	4.50	4.25	4.00			Br. Goldsmith	3.00	5.70	5.40	5.10	4.80	4.50	
	Albatross	3.00	5.70	5.40	5.10	4.80	4.50			Br. Masterpiece	2.50	4.75	4.50	4.25	4.00	3.75	
	Ambassador	3.00	5.70	5.40	5.10	4.80	4.50			Br. Minstrel	4.00	7.60	7.20	6.80	6.40	6.00	
	Amy	4.00	7.60	7.20	6.80	6.40	6.00			Br. Minuet	3.50	6.65	6.30	5.95	5.60	5.25	
	Anaconda	2.75	5.20	4.95	4.65	4.40	4.15			Br. Mistletoe	3.00	5.70	5.40	5.10	4.80	4.50	
	Apricot Queen	3.00	5.70	5.40	5.10	4.80	4.50			Br. Orchid Queen	3.00	5.70	5.40	5.10	4.80	4.50	
	Apricot Valencia	2.75	5.20	4.95	4.65	4.40	4.15			Br. Pearson	2.50	4.75	4.50	4.25	4.00	3.75	
	Arcadia	2.75	5.20	4.95	4.65	4.40	4.15			Br. Riviera	4.00	7.60	7.20	6.80	6.40	6.00	
	Aristocrat	3.25	6.00	5.75	5.50	5.25	5.00			Br. Supreme	3.00	5.70	5.40	5.10	4.80	4.50	
	Ball Engle	2.50	4.75	4.50	4.25	4.00	3.75			Br. Thyra	4.00	7.60	7.20	6.80	6.40	6.00	
	Ballerina	4.00	7.60	7.20	6.80	6.40	6.00			Br. Tuxedo	3.00	5.70	5.40	5.10	4.80	4.50	
	Bamboo	5.00	9.50	9.00	8.50	8.00	7.50			Buckskin	5.00	9.50	9.00	8.50	8.00	7.50	
	Barcarole	2.75	5.20	4.95	4.65	4.40	4.15			Butterscotch	4.00	7.60	7.20	6.80	6.40	6.00	
	Beauregard	5.00	9.50	9.00	8.50	8.00	7.50			Calico	5.00	9.50	9.00	8.50	8.00	7.50	
	Beautiful Lady	2.75	5.20	4.95	4.65	4.40	4.15			Cameo	2.75	5.20	4.95	4.65	4.40	4.15	
	Belray	5.00	9.50	9.00	8.50	8.00	7.50			Capt. Cook	2.50	4.50	4.25	4.00	3.75	3.50	
	Betty Rose	3.00	5.70	5.40	5.10	4.80	4.50			Carmelia	3.00	5.70	5.40	5.10	4.80	4.50	
	Betsy Ross	2.75	5.20	4.95	4.65	4.40	4.15			Carolyn Yosick	3.00	5.70	5.40	5.10	4.80	4.50	
	Bittersweet	2.75	5.20	4.95	4.65	4.40	4.15			Carousel	5.00	9.50	9.00	8.50	8.00	7.50	
	Blazing Gold	3.00	5.70	5.40	5.10	4.80	4.50			Cassandra	2.75	5.20	4.95	4.65	4.40	4.15	
	Bojangles	5.00	9.50	9.00	8.50	8.00	7.50			Catherine	2.50	4.50	4.25	4.00	3.75	3.50	
	Bonnaillon Deluxe	2.50	4.75	4.50	4.25	4.00	3.75			Cavalcade	3.25	6.00	5.75	5.50	5.25	5.00	
	Bonton	3.75	7.00	6.75	6.50	6.25	6.00			Celestra	2.50	4.50	4.25	4.00	3.75	3.50	
	Bourbon	4.00	7.60	7.20	6.80	6.40	6.00			Challenge	5.00	9.50	9.00	8.50	8.00	7.50	
	Brandywine	5.00	9.50	9.00	8.50	8.00	7.50			Champagne	4.00	7.60	7.20	6.80	6.40	6.00	
	Bright Forecast	5.00	9.50	9.00	8.50	8.00	7.50			Chanticleer	5.00	9.50	9.00	8.50	8.00	7.50	
	Bristolite	3.00	5.70	5.40	5.10	4.80	4.50			Chattanooga	2.50	4.75	4.50	4.25	4.00	3.75	
	Brocade	2.50	4.75	4.50	4.25	4.00	3.75			Chevron	5.00	9.50	9.00	8.50	8.00	7.50	
	Br. Brocade	4.50	8.50	8.25	8.00	7.75	7.50			Chicago Pearl	2.50	4.75	4.50	4.25	4.00	3.75	
	Br. Buckingham	2.75	5.00	4.75	4.50	4.25	4.00			Christmas Cheer	2.50	4.75	4.50	4.25	4.00	3.75	
	Br. Calif. Daisy	2.50	4.75	4.50	4.25	4.00	3.75			Christmas Greeting	5.00	9.50	9.00	8.50	8.00	7.50	
	Br. Dot	2.75	5.20	4.95	4.65	4.40	4.15			Christmas Star	3.50	6.65	6.30	5.95	5.60	5.25	

GREENHOUSE VARIETIES

Quan.	Variety	50 per 50	100- 250 per 100	300- 450 per 100	500- 950 per 100	1000- 2450 per 100	2500- up per 100	Amount	Quan.	Variety	50 per 50	100- 250 per 100	300- 450 per 100	500- 950 per 100	1000- 2450 per 100	2500- up per 100
	Cinderella	4.00	7.60	7.20	6.80	6.40	6.00			Goldrush	5.00	9.50	9.00	8.50	8.00	7.50
	Claret	5.00	9.50	9.00	8.50	8.00	7.50			Goldtone	5.00	9.50	9.00	8.50	8.00	7.50
	Classic	5.00	9.50	9.00	8.50	8.00	7.50			Golden Anniversary	3.50	6.65	6.30	5.95	5.60	5.25
	Constellation	3.00	5.70	5.40	5.10	4.80	4.50			Golden Chord	4.00	7.60	7.20	6.80	6.40	6.00
	Copperhead	5.00	9.50	9.00	8.50	8.00	7.50			Golden Glory	3.00	5.70	5.40	5.10	4.80	4.50
	Cordova	2.75	5.20	4.95	4.65	4.40	4.15			Golden Harvest	4.00	7.60	7.20	6.80	6.40	6.00
	Coronet	5.00	9.50	9.00	8.50	8.00	7.50			Golden Herald	2.75	5.20	4.95	4.65	4.40	4.15
	Corsair	5.00	9.50	9.00	8.50	8.00	7.50			Golden Jane	2.75	5.20	4.95	4.65	4.40	4.15
	Cotton Top	3.00	5.70	5.40	5.10	4.80	4.50			Golden Mensa	2.75	5.20	4.95	4.65	4.40	4.15
	Cream Dot	2.50	4.75	4.50	4.25	4.00	3.75			Golden Mistletoe	3.00	5.70	5.40	5.10	4.80	4.50
	Crescendo	5.00	9.50	9.00	8.50	8.00	7.50			Golden Mrs. Ross	2.50	4.75	4.50	4.25	4.00	3.75
	Crimson Valencia	4.00	7.60	7.20	6.80	6.40	6.00			Golden Pearson	2.50	4.75	4.50	4.25	4.00	3.75
	Crystal Beauty	4.00	7.60	7.20	6.80	6.40	6.00			Golden Surprise	2.50	4.75	4.50	4.25	4.00	3.75
	Dk. Br. Masterpiece	4.00	7.60	7.20	6.80	6.40	6.00			Gov. Lake	2.50	4.75	4.50	4.25	4.00	3.75
	Dk. Bulkeley	3.00	5.70	5.40	5.10	4.80	4.50			Goldsmith	3.00	5.70	5.40	5.10	4.80	4.50
	Dr. Enchantress	4.00	7.60	7.20	6.80	6.40	6.00			Good News	3.00	5.70	5.40	5.10	4.80	4.50
	Dk. Orchid Queen	3.00	5.70	5.40	5.10	4.80	4.50			Granite State	2.75	5.20	4.95	4.65	4.40	4.15
	Dk. Pk. Dot	4.00	7.60	7.20	6.80	6.40	6.00			Grenadier	2.75	5.20	4.95	4.65	4.40	4.15
	Dk. Pk. Jewell	3.00	5.70	5.40	5.10	4.80	4.50			Gypsy	2.75	5.20	4.95	4.65	4.40	4.15
	Dk. Pk. Norma	3.00	5.70	5.40	5.10	4.80	4.50			Halo	5.00	9.50	9.00	8.50	8.00	7.50
	Dk. Pk. Riviera	4.50	8.50	8.25	8.00	7.75	7.50			Harmony	2.75	5.20	4.95	4.65	4.40	4.15
	Dk. Pk. Supreme	3.00	5.70	5.40	5.10	4.80	4.50			Harvester	3.00	5.70	5.40	5.10	4.80	4.50
	Dk. Pk. Valencia	2.75	5.20	4.95	4.65	4.40	4.15			Hasegawa Pink	2.50	4.50	4.25	4.00	3.75	3.50
	Dazzler	5.00	9.50	9.00	8.50	8.00	7.50			Heirloom	5.00	9.50	9.00	8.50	8.00	7.50
	Debonair	2.75	5.20	4.95	4.65	4.40	4.15			Helen Frick	2.75	5.20	4.95	4.65	4.40	4.15
	Debutante	5.00	9.50	9.00	8.50	8.00	7.50			Highbrow	5.00	9.50	9.00	8.50	8.00	7.50
	Dec. Glory	2.75	5.20	4.95	4.65	4.40	4.15			Hilda Bergen	3.00	5.70	5.40	5.10	4.80	4.50
	Dec. Gold	2.75	5.20	4.95	4.65	4.40	4.15			Hindustan	3.50	6.65	6.30	5.95	5.60	5.25
	Dec. White	3.00	5.70	5.40	5.10	4.80	4.50			Holiday	4.00	7.60	7.20	6.80	6.40	6.00
	Defiance	4.00	7.60	7.20	6.80	6.40	6.00			Honey Dew	3.00	5.70	5.40	5.10	4.80	4.50
	Detroit News	3.00	5.70	5.40	5.10	4.80	4.50			Illini Bountiful	4.00	7.60	7.20	6.80	6.40	6.00
	Dream Boat	3.00	5.70	5.40	5.10	4.80	4.50			Illini Brave	4.00	7.60	7.20	6.80	6.40	6.00
	Dr. Enguehardt	2.75	5.20	4.95	4.65	4.40	4.15			Illini Camille	5.00	9.50	9.25	9.00	8.75	8.50
	Early October	3.00	5.70	5.40	5.10	4.80	4.50			Illini Gold	3.00	5.70	5.40	5.10	4.80	4.50
	Ecstasy	2.75	5.00	4.75	4.50	4.25	4.00			Illini Goldcup	5.00	9.50	9.25	9.00	8.75	8.50
	Ed. Seidewitz	2.75	5.20	4.95	4.65	4.40	4.15			Illini Honey	4.00	7.60	7.20	6.80	6.40	6.00
	Enchantress	3.00	5.70	5.40	5.10	4.80	4.50			Illini Redhead	4.00	7.60	7.20	6.80	6.40	6.00
	Encore	4.00	7.60	7.20	6.80	6.40	6.00			Illini Snowdrift	4.00	7.60	7.20	6.80	6.40	6.00
	Falcon	5.00	9.50	9.00	8.50	8.00	7.50			Illini Starburst	5.00	9.50	9.25	9.00	8.75	8.50
	Fashion	5.00	9.50	9.00	8.50	8.00	7.50			Illini Warrior	4.00	7.60	7.20	6.80	6.40	6.00
	Felicity	3.50	6.65	6.30	5.95	5.60	5.25			Indagold	3.50	6.65	6.30	5.95	5.60	5.25
	Festival	4.00	7.60	7.20	6.80	6.40	6.00			Indiana Market	3.25	6.00	5.75	5.50	5.25	5.00
	Firebird	2.50	4.75	4.50	4.25	4.00	3.75			Ind. Bronze	2.75	5.20	4.95	4.65	4.40	4.15
	Firefly	5.00	9.50	9.00	8.50	8.00	7.50			Ind. Pink	2.75	5.20	4.95	4.65	4.40	4.15
	Fireside	5.00	9.50	9.00	8.50	8.00	7.50			Ind. White	2.75	5.20	4.95	4.65	4.40	4.15
	Forty Niner	4.00	7.60	7.20	6.80	6.40	6.00			Ind. Yellow	2.75	5.20	4.95	4.65	4.40	4.15
	Fortune	5.00	9.50	9.00	8.50	8.00	7.50			Indian Head	5.00	9.50	9.00	8.50	8.00	7.50
	Freida	2.50	4.50	4.25	4.00	3.75	3.50			Irene	2.50	4.50	4.25	4.00	3.75	3.50
	Friendly Rival	2.75	5.20	4.95	4.65	4.40	4.15			Ishida	3.50	6.65	6.30	5.95	5.60	5.25
	Galaxy	4.00	7.60	7.20	6.80	6.40	6.00			Ivanhoe	3.00	5.70	5.40	5.10	4.80	4.50
	Garnet King	3.00	5.70	5.40	5.10	4.80	4.50			Ivory Snow	3.00	5.70	5.40	5.10	4.80	4.50
	Garza	2.75	5.20	4.95	4.65	4.40	4.15			Izola	2.50	4.75	4.50	4.25	4.00	3.75
	Gladys Pearson	2.50	4.75	4.50	4.25	4.00	3.75			Jamboree	5.00	9.50	9.00	8.50	8.00	7.50
	Glitters	3.00	5.70	5.40	5.10	4.80	4.50			James Stewart	5.00	9.50	9.00	8.50	8.00	7.50
	Gold Braid	5.00	9.50	9.00	8.50	8.00	7.50			Jean Elizabeth	3.00	5.70	5.40	5.10	4.80	4.50
	Gold Coast	2.50	4.75	4.50	4.25	4.00	3.75			Jemima	2.75	5.00	4.75	4.50	4.25	4.00
	Gold Lode	2.50	4.75	4.50	4.25	4.00	3.75			Jersey Sunburst	4.00	7.50	7.25	7.00	6.75	6.50

GREENHOUSE VARIETIES

Quan.	Variety	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500-up per 100	Amount	Quan.	Variety	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500-up per 100	Amount
	Jessie	2.75	5.20	4.95	4.65	4.40	4.15			Omega	3.00	5.70	5.40	5.10	4.80	4.50	
	Jewell	3.00	5.70	5.40	5.10	4.80	4.50			Orchid Beauty	2.75	5.20	4.95	4.65	4.40	4.15	
	J. W. Prince	2.75	5.20	4.95	4.65	4.40	4.15			Orchid Queen	3.00	5.70	5.40	5.10	4.80	4.50	
	Joybringer	5.00	9.50	9.00	8.50	8.00	7.50			Orchis	4.00	7.60	7.20	6.80	6.40	6.00	
	Kay Tashima	3.50	6.50	6.25	6.00	5.75	5.50			Pageantry	5.00	9.50	9.00	8.50	8.00	7.50	
	Klondike	5.00	9.50	9.00	8.50	8.00	7.50			Paragon	5.00	9.50	9.00	8.50	8.00	7.50	
	Kolowa	5.00	9.50	9.00	8.50	8.00	7.50			Paramount	5.00	9.50	9.00	8.50	8.00	7.50	
	Legal Tender	2.50	4.75	4.50	4.25	4.00	3.75			Peggy Ann Hoover	3.50	6.50	6.25	6.00	5.75	5.50	
	Lemonade	5.00	9.50	9.00	8.50	8.00	7.50			Pk. Calif. Daisy	2.50	4.75	4.50	4.25	4.00	3.75	
	Lillian Doty	2.75	5.20	4.95	4.65	4.40	4.15			Pk. Chief	2.75	5.20	4.95	4.65	4.40	4.15	
	Little America	2.25	4.25	4.00	3.80	3.60	3.35			Pk. Dot	2.75	5.20	4.95	4.65	4.40	4.15	
	Linda Lou	2.75	5.20	4.95	4.65	4.40	4.15			Pk. L. I. Beauty	4.00	7.60	7.20	6.80	6.40	6.00	
	Lollipop	5.00	9.50	9.00	8.50	8.00	7.50			Pk. Mistletoe	3.00	5.70	5.40	5.10	4.80	4.50	
	L. I. Beauty	2.50	4.75	4.50	4.25	4.00	3.75			Pk. Pockett	3.00	5.70	5.40	5.10	4.80	4.50	
	Lorraine	4.00	7.60	7.20	6.80	6.40	6.00			Pk. Sprite	4.00	7.60	7.20	6.80	6.40	6.00	
	Magician	5.00	9.50	9.00	8.50	8.00	7.50			Pk. Treasure Island	2.50	4.50	4.25	4.00	3.75	3.50	
	Mahogany Viking	3.00	5.70	5.40	5.10	4.80	4.50			Pinky	5.00	9.50	9.00	8.50	8.00	7.50	
	Major Bowes	2.75	5.00	4.75	4.50	4.25	4.00			Pinocchio	2.75	5.20	4.95	4.65	4.40	4.15	
	Majorette	5.00	9.50	9.00	8.50	8.00	7.50			Pixie	2.50	4.50	4.25	4.00	3.75	3.50	
	Mamoru	2.75	5.20	4.95	4.65	4.40	4.15			Popcorn	4.00	7.60	7.20	6.80	6.40	6.00	
	Margaret Moeller	2.75	5.20	4.95	4.65	4.40	4.15			Princeton	3.00	5.70	5.40	5.10	4.80	4.50	
	Marie De Petris	2.75	5.20	4.95	4.65	4.40	4.15			Priscilla	2.75	5.20	4.95	4.65	4.40	4.15	
	Marionette	5.00	9.50	9.00	8.50	8.00	7.50			Pristine	4.00	7.60	7.20	6.80	6.40	6.00	
	Marketeer	2.75	5.20	4.95	4.65	4.40	4.15			Purdue	4.00	7.60	7.20	6.80	6.40	6.00	
	Mary Garden	5.00	9.50	9.00	8.50	8.00	7.50			Queen's Lace	4.00	7.60	7.20	6.80	6.40	6.00	
	Mary Gold	2.50	4.50	4.25	4.00	3.75	3.50			Queen of Pinks	2.75	5.20	4.95	4.65	4.40	4.15	
	Mary L. Hall	2.50	4.75	4.50	4.25	4.00	3.75			Radiant	3.00	5.70	5.40	5.10	4.80	4.50	
	Mary McArthur	3.50	6.65	6.30	5.95	5.60	5.25			Red Bristolite	3.00	5.70	5.40	5.10	4.80	4.50	
	Masterpiece	2.50	4.75	4.50	4.25	4.00	3.75			Red Daisy	3.00	5.70	5.40	5.10	4.80	4.50	
	Matchless	2.75	5.20	4.95	4.65	4.40	4.15			Red Dot	4.00	7.60	7.20	6.80	6.40	6.00	
	Medallion	5.00	9.50	9.00	8.50	8.00	7.50			Red Princeton	3.00	5.70	5.40	5.10	4.80	4.50	
	Mefo	3.00	5.70	5.40	5.10	4.80	4.50			Red Rolinda	2.75	5.20	4.95	4.65	4.40	4.15	
	Merrymaker	4.00	7.60	7.20	6.80	6.40	6.00			Red Rust	3.00	5.70	5.40	5.10	4.80	4.50	
	Meteore	3.00	5.70	5.40	5.10	4.80	4.50			Red Seneca	4.00	7.60	7.20	6.80	6.40	6.00	
	Minong	2.50	4.75	4.50	4.25	4.00	3.75			Red Spider	3.50	6.50	6.25	6.00	5.75	5.50	
	Minstrel	3.50	6.65	6.30	5.95	5.60	5.25			Red Supreme	4.50	8.50	8.25	8.00	7.75	7.50	
	Minuet	2.75	5.20	4.95	4.65	4.40	4.15			Renown	5.00	9.50	9.00	8.50	8.00	7.50	
	Monument	2.75	5.20	4.95	4.65	4.40	4.15			Rev. Bushnell	3.00	5.70	5.40	5.10	4.80	4.50	
	Monogram	5.00	9.50	9.00	8.50	8.00	7.50			Revelation	2.25	4.25	4.00	3.80	3.60	3.35	
	Moonglow	4.00	7.60	7.20	6.80	6.40	6.00			Reward	5.00	9.50	9.00	8.50	8.00	7.50	
	Mrs. Dewey	5.00	9.50	9.00	8.50	8.00	7.50			Richard Mandel	2.75	5.20	4.95	4.65	4.40	4.15	
	Mrs. Kidder	2.50	4.75	4.50	4.25	4.00	3.75			Riviera	2.75	5.20	4.95	4.65	4.40	4.15	
	Mrs. R. A. Walker	3.50	6.50	6.25	6.00	5.75	5.50			Robinhue	5.00	9.50	9.00	8.50	8.00	7.50	
	Mrs. Roy	3.00	5.70	5.40	5.10	4.80	4.50			Rodell Improved	2.50	4.50	4.25	4.00	3.75	3.50	
	Muto's Crimson	4.00	7.60	7.20	6.80	6.40	6.00			Rosalind	2.50	4.75	4.50	4.25	4.00	3.75	
	Navaho	2.75	5.20	4.95	4.65	4.40	4.15			Royal Queen	2.50	4.75	4.50	4.25	4.00	3.75	
	Nevada	2.75	5.20	4.95	4.65	4.40	4.15			Rubicon	4.00	7.60	7.20	6.80	6.40	6.00	
	Nocturne	5.00	9.50	9.00	8.50	8.00	7.50			Rusticon	2.75	5.20	4.95	4.65	4.40	4.15	
	Nokomis	5.00	9.50	9.00	8.50	8.00	7.50			Salute	5.00	9.50	9.00	8.50	8.00	7.50	
	Norma	3.00	5.70	5.40	5.10	4.80	4.50			Samovar	4.00	7.60	7.20	6.80	6.40	6.00	
	Nosegay	5.00	9.50	9.00	8.50	8.00	7.50			Sarong	3.00	5.70	5.40	5.10	4.80	4.50	
	Nov. Bronze	3.00	5.70	5.40	5.10	4.80	4.50			Sch. Daisy	4.00	7.60	7.20	6.80	6.40	6.00	
	Nuggets	2.25	4.25	4.00	3.80	3.60	3.35			Seafoam	2.50	4.75	4.50	4.25	4.00	3.75	
	Oakdale	5.00	9.50	9.00	8.50	8.00	7.50			Seagull	2.75	5.20	4.95	4.65	4.40	4.15	
	Oak Leaf	2.50	4.75	4.50	4.25	4.00	3.75			Senecca	3.00	5.70	5.40	5.10	4.80	4.50	
	October Bronze	3.00	5.70	5.40	5.10	4.80	4.50			Sequin	5.00	9.50	9.00	8.50	8.00	7.50	
	October Pink	3.00	5.70	5.40	5.10	4.80	4.50			Serenade	5.00	9.50	9.00	8.50	8.00	7.50	

GREENHOUSE VARIETIES

Quan.	Variety	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500-up per 100	Amount
	Shamrock	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Shasta	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Silver Ball	2.50	4.50	4.25	4.00	3.75	3.50	.....
	Silverplate	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Silver Sheen	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Silversmith	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Siren	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Sm. Late White	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Sm. Superlative	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Snow	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Snowcap	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Snow Cloud	3.00	5.50	5.25	5.00	4.75	4.50	.....
	Snowcrest	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Snowflurry	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Snowline	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Snow White	2.75	5.00	4.75	4.50	4.25	4.00	.....
	Songster	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Soprano	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Spangles	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Sparkler	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Starbright	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Stately White	2.50	4.50	4.25	4.00	3.75	3.50	.....
	Stately Yellow	2.50	4.50	4.25	4.00	3.75	3.50	.....
	Sterling	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Sue Sally Jones	3.50	6.50	6.25	6.00	5.75	5.50	.....
	Sugar Plum	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Sunburst	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Sunglow	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Sun Gold	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Sunkist	3.00	5.50	5.25	5.00	4.75	4.50	.....
	Sunnyside	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Sunray	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Sunrise	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Susanne Miller	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Sweepstakes	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Sweetheart	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Sylvanna	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Symmetry	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Taffeta	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Thanks. Pink	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Thelma	5.00	9.50	9.00	8.50	8.00	7.50	.....
	The Titan	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Thyra	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Tobin's Yellow	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Trophy	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Tuxedo	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Usona	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Valencia	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Vesper	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Vibrant	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Walter Engle	2.50	4.75	4.50	4.25	4.00	3.75	.....
	W. H. Buckingham	2.75	5.00	4.75	4.50	4.25	4.00	.....

Quan.	Variety	50 per 50	100-250 per 100	300-450 per 100	500-950 per 100	1000-2450 per 100	2500-up per 100	Amount
	Wh. Anemone	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Wh. Calif. Daisy	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Wh. Chief	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Wh. Doty	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Wh. Freida	2.50	4.50	4.25	4.00	3.75	3.50	.....
	Wh. Frick	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Wh. Mensa	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Wh. Mistletoe	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Wh. Norma	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Wh. Pickett	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Wh. Rayonante	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Wh. Supreme	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Wh. Usona	3.50	6.65	6.30	5.95	5.60	5.25	.....
	Wh. Valencia	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Wh. Yuletide	2.75	5.00	4.75	4.50	4.25	4.00	.....
	Winterset	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Witchery	5.00	9.50	9.00	8.50	8.00	7.50	.....
	Yel. Ambassador	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Arcadia	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Beauty	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Bergen	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Cameo	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Cassandra	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Yel. Chattanooga	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Chief	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Cordova	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Cotton Top	5.00	9.50	9.25	9.00	8.75	8.50	.....
	Yel. Daisy	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Dot	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Doty	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Fellow	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Firebird	3.25	6.00	5.75	5.50	5.25	5.00	.....
	Yel. Irene	2.50	4.50	4.25	4.00	3.75	3.50	.....
	Yel. Izola	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Yel. Lace	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Yel. L. I. Beauty	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Yel. Mefo	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Monument	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Nevada	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Pickett	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Queen	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Rayonante	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yel. Revelation	4.00	7.50	7.25	7.00	6.75	6.50	.....
	Yel. Riviera	4.00	7.60	7.20	6.80	6.40	6.00	.....
	Yel. Rolinda	2.75	5.00	4.75	4.50	4.25	4.00	.....
	Yel. Sea Gull	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Shasta	2.75	5.20	4.95	4.65	4.40	4.15	.....
	Yel. Snow	2.50	4.75	4.50	4.25	4.00	3.75	.....
	Yel. Supreme	3.00	5.70	5.40	5.10	4.80	4.50	.....
	Yolanda	2.50	4.50	4.25	4.00	3.75	3.50
	Yukon	2.50	4.75	4.50	4.25	4.00	3.75
	Yuleflame	3.50	6.65	6.30	5.95	5.60	5.25

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.....Major	
.....Manda	
.....Meditat	
.....Mellow	
.....M. J. C	
.....Model	
.....Mona	
.....Morning	
.....Morning	
.....Mrs. D	
.....Mrs. F	
.....Mrs. S.	
.....Nye's	
.....Old Gold	
.....Olive I	
.....Orchid	
.....Orchid	
.....Oriente	
.....Paper	
.....Patricia	
.....Pepita	
.....Pink B	
.....Polar	
.....Polaris	
.....Pompo	
.....Purple	
.....Red G	
.....Red R	
.....Red V	
.....Reme	
.....Rose S	
.....Rosita	
.....Ruby	
.....Salmon	
.....Sam V	



4 NEW DEPETRIS GARDEN VARIETIES

Polaris. (Left). Oct. 5. Tall yellow single.

Mona (Upper left). Medium height. Oct. 5.

Carmine Queen. (Upper center). Tall. Oct. 10.

Carmelita. (Upper right). Tall. Oct. 15.

Prices above 4 varieties, each; 50 cuttings, \$5.00; 100 to 250 cuttings, \$9.50 per 100; 300 to 450 cuttings, \$9.00 per 100; 500 cuttings and up, \$8.50 per 100.

Olive Longland. (Lower left). An excellent University of Chicago introduction of 5 years ago. Still one of the best. Medium tall. Oct. 1.

50 cuttings, \$2.50; 100 to 250 cuttings, \$4.50 per 100; 300 to 450 cuttings, \$4.25 per 100; 500 cuttings and up, \$4.00 per 100.

Mrs. Du Pont. (Lower right). Introduced by Cumming in 1941. One of the finest garden varieties. Tall. Oct. 5.

50 cuttings, \$3.00; 100 to 250 cuttings, \$5.50 per 100; 300 to 450 cuttings, \$5.25 per 100; 500 cuttings and up, \$5.00 per 100.

Geo. J. Ball, Inc., West Chicago, Ill.



Special 1

SP
500 roots
50 each
cutting.

Quantity

Special 1
SP
500 roots
50 each
cutting.